THE
Idea of Practical Physick
IN
TWELVE BOOKS.

VIZ.

1 *The Art to preserve Health.*
2 *Of the Preternatural Disorders of Mans Body, and their Signs.*
3 *Of Medicaments.*
4 *Of the Art of Healing.*
5 *Of the general Cure of Diseases.*
6 *Of External Diseases.*
7 *Of Feavers.*
8 *Of Head Diseases.*
9 *Of Middle-belly Diseases.*
10 *Of Lower-belly Diseases.*
11 *Of Venemous Diseases.*
12 *Of Childrens Diseases.*

These Twelve Books are of excellent Use for all yong Students in Physick. They contain the Marrow of all the Works of *Daniel Sennertus*, and *Fernelius*, and twenty five Physitians more, mentioned in the Authors Epistle. They are of so high esteem with many Learned Doctors of Physick, that they have been read by them to their Scholers, as the best extant in their kind. Written in Latin by *John Johnston*, Professor of Physick in the famous City of FRANCFORT. And Englished

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By *Nich. Culpeper*, Gent. Student in Physick and Astrology.
And *W R.*

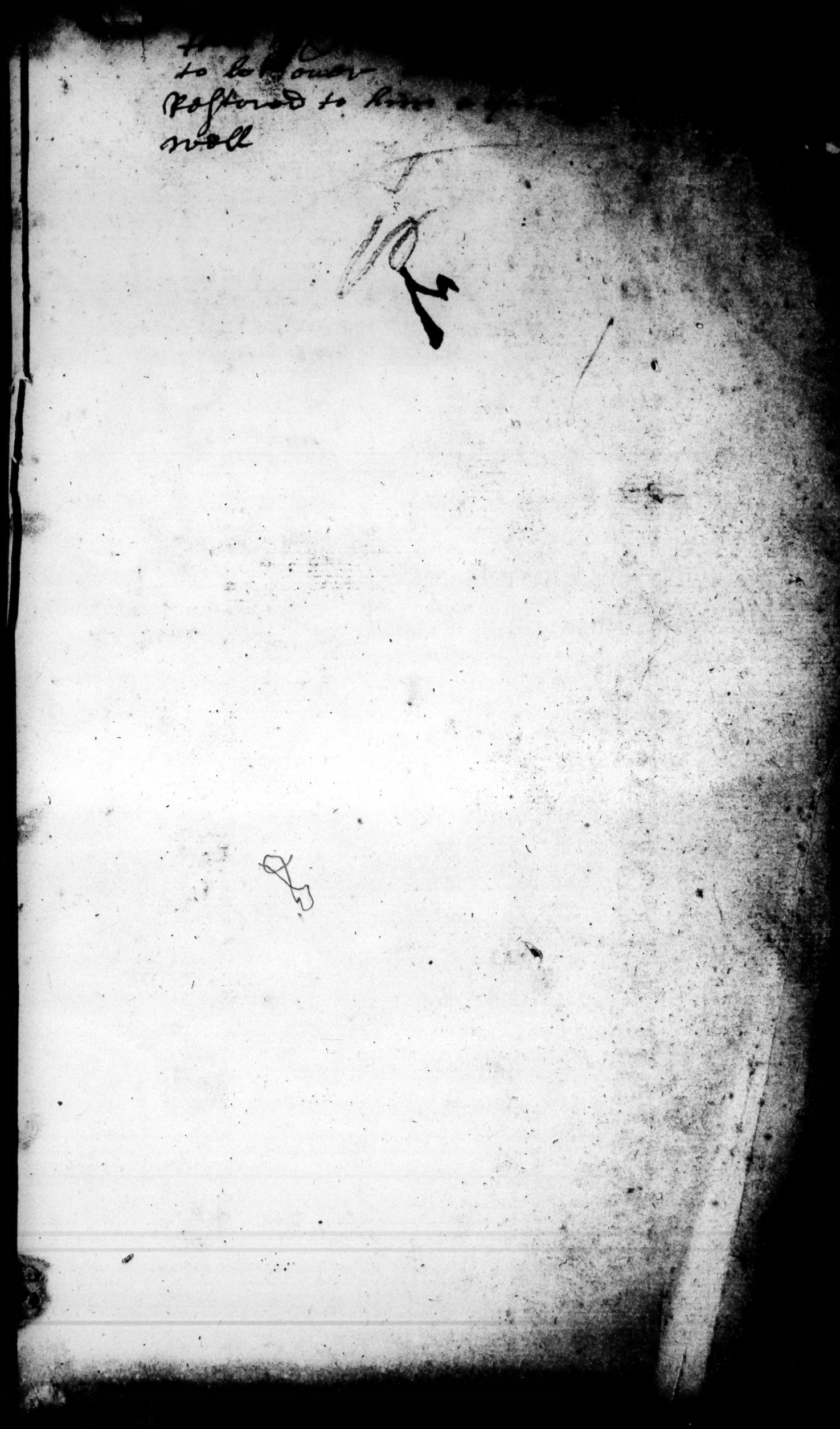
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Jonstonus, Fortunae.

LONDON;



Printed by *Peter Cole*, Printer and Book-seller, at the Sign of the Printing-Press in Chornhil, near the Royal Exchange. 1657.



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The Printer to the Reader.

Courteous Reader,

FInding by Experience how hardly such Gentlemen as Study Physick in our Mother tongue, are induced to read with patience and consideration, the Speculative Rules of the said Art; both (as I conceive) because of the seeming difficulty thereof, compared to books of mere Practice, and because of the undue hast that the foresaid Gentlemen are wont to make to practice upon the sick, moved by Covetousnes, Vain-glory, or I know not what other evil spirit; not knowing, or little considering, how much the Reading of some such good Book is necessary to enable a Man to Practice: By which unhappy error, they prove rather Empyricks and Quacksalvers, than rational Physitians, which nevertheless they would willingly be thought to be; to remedy so great a mischief, I have diligently sought (and at last by direction of my good Angel, found) such an Institution, so coupled with practice, and such a practice so walking hand in hand with an Institution, such a practical Institution and Institutional practice, and both in so cleare a Method, so witty and concise a stile, and furnished with such ample and delightful variety of al things any way concerning the contemplative or practical part of Physick; that I have al the Reason in the World to hope, the publication hereof wil prove an effectual Remedy to the foresaid very grievous malady; acquainting the mere English Physitian with such skil in the Theory of his Art, as he hath hitherto nauseated to receive, from any thing yet published in our Language.

I need not spend time to praise our Author: this learned, ingenious, polite Piece of his, wil sufficiently do that, which he, being chose Professor of Physick in the far renowned City of Francfort, and not able to read his Lectures, because of some troubles there; did publish to supply that defect, as the best manuduction to young students into that noble Art. And it is become of so high esteeme beyond the Seas, that the learned Professor of Physick at Leipsich, Dr. John Micael did use to bring it up into his Pulpit, as his Physical Bible (if I may so say) out of which he daily read his text, and made Sermons of that Art to his admiring Disciples.

See the Authors own Epistle following the Catalogue of Books by me Printed.

What remains (Courteous Reader) but that thou meet my Endeavours for thy good, and the good of my Country, with a chearful Countenance and a joyful

The Printer to the Reader.

Heart, and to take heed thou be none of thoſe Fooles, Who have a price in their hand to get wiſdom, but have no Heart to it; *Prov.* 17. 16. *But I have better hopes of thee (Friendly* Reader) *though many ſuch there are in the World.* Farewel.

Thy Friend to Serve
thee, if thou pleaſe,

Peter Cole,

The Names of Books printed by Peter Cole, *Printer and Book-ſeller of* London: *and are to be ſold at his Shop, at the ſign of the Printing-preſs in Cornhil, neer the Royal Exchange.*

Twelve new Books in one Volum of Nich. Culpeper, *All called the Idea of Practical Phyſick.*

1 The art to preſerve Health.
2 The preternatural diſorder of mans body, and their Signs.
3 Of Medicaments.
4 Of the art of Healing.
5 Of the general Cure of Diſeaſes.
6 Of External Diſeaſes.
7 Of Feavers.
8 Of Head Diſeaſes.
9 Of milde Belly Diſeaſes.
10 Of Lower belly Diſeaſes.
11 Of Venemous Diſeaſes.
12 Of Childrens Diſeaſes.

Twenty ſeven Books of Nich. Culpeper, *Gent: Student in Phyſick and Aſtrologie, formerly publiſhed.*

The firſt ſeventeen Books. Are al called the *Practice of Phyſick*, Wherein is plainly ſet forth, The *Nature, Cauſe, Differences,* and ſeveral ſorts of *Signs*; Together with the Cure of al Diſeaſes in the Body of Man. Being a Tranſlation of the Works of that Learned and Renowned Doctor, *Lazarus Riverius*, now living; Councellor and Phyſitian to the preſent King of *France*. Above fifteen thouſand of the ſaid Books in Latin have been ſold in a very few Yeers, having been eight times printed, though al the former Impreſſions wanted the Nature, Cauſes, Signs, and Differences of the Diſeaſes, and had only the Medicines for the cure for them; as plainly appears by the Authors Epiſtle.

18. A Sure Guide to Phyſick and Chyrurgery: That is to ſay, The Arts of Healing by Medicine, and Manual Operation. Being an Anatomical Deſcription of the whol body of Man, and its parts, with their Reſpective diſeaſes, demonſtrated from the Fabrick and uſe of the ſaid Parts. In Six Books of *Riolanus*, tranſlated, and adorned with an hundred eighty four Figures cut in Braſs.

19 *Veſlingus Anatomy of the Body of Man*, Wherein is exactly deſcribed, the ſeveral Parts of the Body of Man, illuſtrated with very many larger Braſs Plates than ever was in Engliſh before.

20 A Tranſlation of the *New diſpenſatory*, made by the Colledg of Phyſitians of *London*. Whereunto is added The *Key to* Galens *Method of Phyſick*.

21 The *Engliſh Phyſitian enlarged*. being an Aſtrologo-Phyſical Diſcourſe of the vulgar Herbs of this Nation; wherein is ſhewed how to cure a mans ſelf of moſt Diſeaſes incident to Mans Body, with ſuch things as grow in *England*, and for three pence charge. Alſo in the ſame Book is ſhewed, 1 The time of gathering al Herbs, both Vulgarly and Aſtrologically. 2 The way of drying, and keeping them and their Juyces. 3 The way of making and keeping al manner of uſeful Compounds, made of thoſe Herbs. The way of mixing the Medicines according to the Cauſe, and Mixture of the Diſeaſe, and the part of the Body afflicted.

22 A *Directory for Midwives*, or a *Guide for Women*. Newly enlarged by the Author in every ſheet, and illuſtrated with divers new Plates.

23 *Galens Art of Phyſick*, with a large Comment.

24 A New Method both of ſtudying practiſing and Phyſick.

25 A Treatiſe of the Rickets, being a Diſeaſe common to Children wherein is ſhewed, 1 The Eſſence, 2 The Cauſes, 3 The Signs, 4 The Remedies of the Diſeaſe: Publiſhed in Latin by Dr. *Gliſſon*, Dr. *Bates* and Dr. *Regemorter*, tranſlated into Engliſh, And corrected by *N. Culpeper*.

26 Medicaments for the Poor, Or Phyſick for Common the People.

27 Health for the Rich and Poor, by Dyet without Phyſick.

Mr. Hookers *New Books in three Volums: One in Octavo, and two in Quarto.*

Theſe Eleven New Books of Mr. *Thomas Hooker*, made in *New-England* Are atteſted in an Epiſtle by Mr. *Thomas Goodwin*, and Mr. *Philip Nye*, To be written with the Authors Own hand: None being written by himſelf before. One Volum being a Commens upon Chriſt's laſt Prayer in the Seventeenth of *John*: wherein is opened, The *union* beleevers have with God and Chriſt, and the glorious Priviledges thereof. Beſides many other Goſpel Truths, there is alſo ſhewed.

1 *That the end why the Saints receive al glorious Grace, is, That they may be one, as the Father and Chriſt are one.*
2 *That God the Father loveth the Faithful, as he loveth Jeſus Chriſt.*
3 *That our Savior deſireth to have the Faithful in Heaven with himſelf.*
4 *That the happineſs of our being in Heaven, is to ſee Chriſts Glory.*
5 *That there is much wanting in the knowledg of Gods Love, in the moſt able Saints.*
6 *That the Lord Chriſt lends dayly direction, according to the dayly need of*

of his Servants.

7 *That it is the desire, and endeavor of our Savior, that the dearest of Gods Love, which was bestowed on himself, should be given to his faithful Servants.*

8 *That our Union, and Communion with God in Christ, is the top of our happiness in Heaven.*

The first eight Books: of the Application of Redemption, By the effectual Work of the Word, and Spirit of Christ, for the bringing home of lost Sinners to God. In which (besides many other seasonable, and Soul-searching Truths) there is also largely shewed.

1 *Christ hath purchased al spiritual good for* H I S.

2 *Christ puts al* H I S *into possession of al that good that he hath purchased.*

3 *The Soul must be fitted for Christ before it can receive him: And a powerful Ministry is the ordinary means to prepare the heart for Christ.*

4 *The work of God is free: And the day of Salvation, is while this Life last, and the Gospel continue.*

5 *God cals his Elect at any* Age, *but the most before old Age.*

6 *The Soul is naturally setled in a sinful security.*

7 *The heart of a Natural man is wholly unwilling to submit to the Word that would sever him from his sins.*

8 *God the Father by a holy kind of violence, plucks* His *out of their corruptions, and draws them to beleeve in Christ.*

The Ninth and Tenth Books of the Application of Redemption by the Effectual Work of the Word, and spirit of Christ, for the bringing home of lost sinners to God. Besides many other seasonable, and Soul-searching Truths, there is also largely shewed.

1 *The heart must be humble and contrite before the Lord wil dwel in it.*

2 *Stubborn, and bloody sinners may be made broken-hearted.*

3 *There must be true sight of sin, before the heart can be broken for it.*

4 *Application of special sins by the Ministry, is a means to bring men to sight of, and sorrow for them.*

5 *Meditation of sin, a special means to break the heart.*

6 *The same word is profitable to some, not to another.*

7 *The Lord sometimes makes the word prevaile most, when its most opposed.*

8 *Sins unrepented of, makes way for piercing Terrors.*

9 *The Truth terrible to a guilty conscience.*

10 *Gross and scandalous sinners, God usually exerciseth with heavy breakings of heart, before they be brought to Christ.*

11 *Sorrow for sin rightly set on, pierceth the heart of the sinner throughly.*

12 *They whose hearts are pierced by the Word, are carried with love and respect to the Ministers of it: And are busie to enquire, and ready to submit to the mind of God.*

13 *Sinners in distress of conscience, are ignorant what they should do.*

14 *A contrite sinner sees a necessity of coming out of his sinful condition.*

15 *There is a secret hope wherewith the Lord supports the hearts of contrite sinners.*

16 *They who are truly pierced for their sins, do prise and covet deliverance from their sins.*

17 *True contrition is accompanied with confession of sin, when God cals thereunto.*

18 *The Soul that is pierced for sin, is carried with a restless dislike against it*

Six Books more of Mr. *Hookers* in two Volums in Quarto, are printing.

Twenty one several Books of Mr. William Bridge, *Collected into two Volumns.* Viz.

1 *Scripture Light the most sure Light:* compared with, 1. Revelations & Visions. 2. Natural & Supernatual Dreams. 3 Impressions with, and without Word. 4. Light and Law within. 5. Divine Providence. 6. Christian Experience. 7. Humane Reason. 8. Judicial Astrology. Delivered in Sermons, on 2 *Pet.* 1. 19.

2 *Christ in Travel:* Wherein, 1. The Travel of his soul. 2. The first and after effects of his Death, 3. His Assurance of Issue. 4. And his satisfaction therein. Are opened and cleered in Sermons, on *Isa.* 53 11.

3 *A Lifting up for the Cast-down,* in case of, 1. Great sin. 2. Weakness of Grace. 3. Miscarriage of Duties. 4. Want of Assurance, 5. Affliction. 6 Temptation. 7. Dissertion. 8. Unserviceableness. 9, Discouragements from the Condition it self. Delivered in thirteen Sermons, on *Psalm,* 42. 11.

His Four Sermons concerning,

4 Sin against the Holy Ghost.

5 Sins of Infirmitie.

6 The false Apostle tried and discovered

7 The good and means of Establishment

8 The great things Faith can do.

9 The great things Faith can suffer.

10 The Great Gospel Mystery of the Saints Comfort and Holiness, opened and applied from Christs Priestly Office.

11 Satans power to Tempt, and Christs Love to, and Care of his People under Temptaton

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13 Grace for Grace.

14 The Spiritual Actings of Faith through Natural Impossibilities.

15 Evangelical Repentance

16 The Spiritual Life, &c.

17 The Woman of Canaan.

18 The Saints Hiding-place, &c.

19 Christs Coming &c.

20 A Vindication of Gospel Ordinances

21 Grace and Love beyond Gifts

Twelve Books of Mr. Jeremiah Burroughs *lately published; also the Texts of Scripture upon which they are grounded.*

1 Gospel Reconciliation, Or Christs Trumpet of Peace to the World. Wherein is Opened Gods exceeding willingness to be Reconciled to Man; And Gods sending his Embassadors to that End. From. 2 *Cor.* 5 19, 20, 21.

2 The Rare Jewel of *Christian Contentment,* on *Phil.* 4. 11. Wherein is shewed, 1 What Contentment is. 2 It is an Holy art and Mystery. 3 The Excellencies of it. 4 The Evil of the contrary sin of Murmuring, and the Aggravations of it.

3 *Gospel-Worship,* on *Levit.* 10. 3. Wherein is shewed, 1 The right manner of the Worship of God in General; And particularly, In hearing the Word, Receiving the Lords supper, & prayer.

4 *Gospel-Conversation,* on *Phil.* 1 17 Wherein is shewed, 1 That the Conversations of Beleevers must be above what could be by the Light of Nature. 2 Beyond those that lived under the Law. 3 And suitable to what Truths the Gospel holds forth. To which is added, *The Misery of those Men that have their Portion in this Life only,* on *Psal.* 17. 14.

5 A Treatise of *Earthly-mindedness:* Wherein is shewed, 1 What Earthly-mindedness is, 2. The great Evil thereof, on *Phil.* 3. part of the 19. verse. Also to the same Book is joyned, A Treatise of *Heavenly-mindedness, and walking with God,* on *Gen.* 5. 24. and on *Phil.* 3. 20.

6 An *Exposition* on the fourth, fifth, sixth, and seventh Chapters of the Prophesie of *Hosea.*

7 An *Exposition* on the eighth, ninth, and tenth Chapters of *Hosea.*

8 An *Exposition* on the eleventh, twelfth,

Books printed by Peter Cole, *Printer and Book-ſeller.*

twelfth, and thirteenth Chapters of *Hoſea*, being now compleat.

9 The *Evil of Evils*, or the exceeding ſinfulneſs of ſin, on *Job* 16. 21.

10 Precious Faith, on 2 *Pet.* 1. 1.

11 Of Hope, on 1 *John* 3. 3.

12 Of Walking by Faith, on 2 *Cor.* 5. 7.

Mr. *Burroughs* his fifty nine Sermons on *Matth.* 11. 28, 29, 30. Are Printing

A Godly and Fruitful *Expoſition*, on the firſt Epiſtle of *Peter*. By Mr. *John Rogers*, Miniſter of the word of God at *Dedham* in *Eſſex*.

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4 The ſtrength of the Saints to make Ieſus Chriſt their ſtrength.

5 The Beſt and Worſt of *Paul*.

6 Gods Eternal preparation for his Dying Saints.

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Englands Deliverance from the Northern Presbitery, compared with its Deliverance from the Roman Papicy. In a Sermon on the 5 of *Nov.* 1651. before the Parliament. By *Peter Sterry*.

The Way of God with his People in theſe Nations. Opened in a Thankſgiving Sermon, preached on the 5 of *Novemb.* 1656. before the Right Honorable, the High Court of Parliament. By *Peter Sterry*.

Mr. *Sympſons* Sermon at *Weſtminſter*

Mr. *Feaks* Sermon before the Lord Major.

The Beſt and Worſt Magiſtrate. By *Obadiah Sedgwick*. A Sermon.

A Sacred Panegyrick. By *Stephen Martial*. A Sermon.

The Craft and Cruelty of the Churches Adverſaries. By *Matthew Newcomin*. A Sermon.

The Magiſtrates Support and Burden. By Mr. *John Cordel*. A Sermon.

Mr. *Owens* ſtedfaſtneſs of the Promiſes. A Sermon.

Mr. *Phillips* Treatiſe of Hell.

——— of Chriſts Genealogy.

The Cauſe of our Diviſions diſcovered, and the Cure propounded.

THE Authors Preface to the Reader.

THree things there are (Studious Reader) which I am to inform thee of in this Preface: *viz.* of the Cauſe of my writing this Book; of the Structure or manner of its Fabrick; and of its uſe.

uſe. I took this pains long ſince, only for my own private occaſions; and now my being called to be publick Profeſſor of Phyſick in the Univerſity of *Francfort*, is the Cauſe that it appears upon the publick Stage of the world. For, ſeeing the Injuriouſneſs of the times would not ſuffer unto me to make it appear how much I valewed my Call to that Profeſsion, and what ardent deſire I had to advance the Studies of young Learners, by publick teaching; I have done both in this Book. Hereunto were added the earneſt deſires of certaine friends, who aſſured me great good would redound to young ſtudents of Phyſick by the publication thereof; and that though *Trincavellus*, *Fernelius*, *Pernumia*, *Petræus*, *Bruel*, *Zacutus*, had done excellently wel; yet that ſome of them being over brief did not meddle with the method of Cureing; others made little or no mention of the Prognoſtick ſigns; others were taken up with diſquiſitions; and ſome of them did not meddle with many diſeaſes. Moreover, they warned me not to ſuffer my ſelf to be terrified with any feare of detractions or calumnies. That ſuch as were void of all vertue themſelves, did render themſelves infamouſly famous among ſuch as themſelves, by detracting from others. That envious perſons void of like good themſelves, did proſtitute their own fame by gnawing upon the glory of others, &c. Touching the *Structure*, underſtand in ſhort, it was my deſire to bring into a ſmal compaſs, the Brief delination of al diſeaſes in a manner, with their ſigns, cauſes, differences, and Cure; that the diligence of the forenamed Authors might be joined hereunto. Among Diſeaſes I thought fit to put *external ones* in the firſt place, both becauſe tis fit to begin with ſuch things as are beſt known to ſence: and becauſe tis thought the firſt practice of Phyſick that ever was, was converſant about them. *Chiron* is reckoned to have been the firſt Phyſitian that ever was, and had his name from the moſt excellent skil in Chyrurgery. I have marſhalled the Signs before the Cauſes, that I might aſsiſt the natural method of humane Conception, in the finding out of things, when this or that ſymptom is related, I enquire into other ſigns. The diſeaſe being known, I proceed to the variety of Cauſes. I have endeavored to reduce al to the Differences, both that the diſeaſe might be thereby more exactly known, and the diverſity of the Cure more accurately expreſſed. If you ſhal ask what *Authors* I follow? you may pleaſe to take notice, that I did long ſince Collect this Introduction to the Practice of Phyſick, out of the Volums of *Daniel Sennertus*, that moſt

renowned Physitian; whose method and order I do now also, wel-neare in al things, follow. With him I have compared, *Fernelius*, *Joel*, *Capivaccius*, *Liddelius*, *Aquapendens*, *Petræus*, *Ferdinandus*, *Fabricius*, *Martinus*, *Collenius*, *Fracastorius*, *Fallopius*, *Quercetanus*, *Zacutus Lusitanus*, *Crucius*, *Platerus*, *Septalius*, *Heurnius*, *Ferrandus*, *Hochstetterus*, *Hutzerus*, *Mynsichtus*, *Beckerus*, *Hart-mannus*, *Stockerus*, and others; al which you shal find cited in their places. As for Medicaments, *I* have set down those which *I* have found most highly commended, by the best Physitians. Nor have *I* concealed such as in my Travels *I* have obtained from certain brave men, nor such as *I* found in the Study of *Mattheus Vechnerus* of blessed memory, cheife Physitian to the King, and my Father in Law; such a Physitian, as this Country of ours has hardly afforded his equal, and (which makes most of al to his praise) a man void of Dissimulation, Boasting, and pompous haughtyness of mind. And many times *I* have only pointed at the Medicaments by naming them and their Authors, that *I* might thereby provoke young Students to read the said Authors; and least that if *I* should have set them down at large, young persons would have abused them by a dangerous presumption. Concerning the *Use*, what it is, and when the student is to employ the same, *I* shal now speak. As to the former, you have here an *Introduction* into those vast works of *Saxonia*, *Mercatus*, *Massaria*, *Capivaccius*, *Radius*, *Sennertus*, touching the diseases of *Mans* body. This work wil serve instead of a book of common-places, into which al that a man reads, may be referred, as to an *Index*; whether they be such things as *I* have not touched, or serving to correct some error (for *I* beleeve *I* may easily have erred) enlargement, or clearing up of what is said. As to the latter, the student of Physick is first to be wel read in the Speculative Rules of the Art before he Practice. Also he is to have skil in the Nature of Plants, Minerals, Anatomy, and Chimistry. And this is that which *I* thought fit to acquaint thee with, Studious Reader. *Farewel.*

THE

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BOOK II.

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Title, I. Of the Diseases of the Head. 1
Title, II. Of the Diseases of the middle Belly. 8
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Mris. *Culpepers* Information, Vindication, and Testimony, concerning her Husbands Books to be Published after his Death.

SO great are the *Afflictions wherewith our* Heavenly Father *hath been pleased to exercise me his poor* Handmaid, *that I have not only lived to see my* dear Husband, (*the* Stay *and* Solace *of my Life*) *taken from me*: but it hath been my hard hap *also to see his* Reputation, *and* Memory (*which will be dear to al Posterity, for the Works he hath written for the Common Good of this Nation*) *blemished and eclipsed, by the* covetous *and* unjust Forgeries *of one, who, though he calls himself* Nathaniel, *is far from being* an Israelite in whom there is no guile; *who was not content to publish a* Hodgpodg *of undigested Collections, and* Observations *of my dear Husband deceased, under the Title of* Culpeper's last Legacy; *but to make the Deceit more taking, he stitled his Forehead so far, and braced it so hard, as not to be ashamed to forge* two Epistles, *one in mine, and the other in my Husbands Name; of the penning of which, he nor I, never so much as dreamed: And yet he* impudently *affirmeth in my Name, that my Husband* Laid a severe Injunction on me to publish them for the general good, after his decease; and that they are his last Experiments in Physick and Chyrurgery. *And in the Title of his Book, he said,* They are the choycest, and most profitable secrets, resolved never to be published til after his Death. *All which Expressions in the Title and Epistles, are as* false *as the Father of Lies; and every word in them, forged and feigned. And he knew wel enough, that no discreet, honest man, that was a friend to my Husband, or me, would ever have agreed to such dishonourable and dishonest practices; and therefore I desire all Courteous Readers of the Writings of my Husband, to take notice of this* Deceit, *and to assure themselvs that it never entred into his head, to publish such an undigested* Gallimoffery, *under the promising and solemn Name of his* Last Legacy, *and that* whereby he gained his Reputation in the World, *as the Impostor makes him speak in his forged Epistle. And I desire any indifferent Reader, that hath observed my* Husbands *lofty, and Masculine manner of expressing himself in his Prefaces, and Epistles Dedicatory, whether in case he had been minded or disposed to take so solemn a farewel of the world, as the* Forger *makes him to do; whether, if so he would have done it, in such a whining fashion, and sain the Stile of a* Ballad-maker; *as to say,* And now, if it please Heaven to put a period to my Life, and Studies, that I must bid al things under the Sun farewel; farewel to my dear Wife and Child, farewel Arts and Sciences, farewel al worldly Glories, adiew Reader. *Certainly my Husband would have been far more serious, and magistrial, in such a case, as any discreet man wil judg. Neither can it be thought, that in such a solemn Valediction, he could possibly forget his wonted respects to the* Colledg of Doctors, *to whom he did so frequently addresse himself, in divers of his writings.*

Courteous Reader, *I shal say no more touching the abuse of the Book-seller, only to prevent (as much as concerns me) thy being abused for the future, know, That my* Husband *left seventy-nine Books of his own making, or Translating, in my hand, and I have depositted them into the hands of his, and my much honored Friend, Mr.* Peter Cole, *Book-seller, at the* Printing-Press, *neer the* Royal Exchange *(for the good of my Child) from whom thou mayest expect to receive in print, such of them as shal be thought fit to serve thee in due season, without any Disguises or Forgeries, unto which I do hereby give my attestation. Also my Husband left seventeen Books compleatly perfected, in the hands of the said Mr.* Cole, *for which he paid my Husband in his life-time: And Mr.* Cole *is ready and willing (on any good occasion) to shew any of the said seventy-nine Books, or the seventeen, to such as desire the same.*

And if any Person shal question the Truth of any part of this Vindication, or Epistle; if they wil take pains to come to me, I wil face to face, justifie the truth of every word thereof, as I have subscribed my Hand thereunto in the presence of many witnesses.

I profess in the presence of the great God, the searcher of al hearts, before whom Mr. Brooks *and I must one day give an account of al our Actions: That I have not published this Epistle or Vindication, out of any dis respect to Mr.* Brooks (*for I much respect the man, and would be glad to serve him to my power*) *but only to cleer my Husband from the folly and weakness cast upon him by the means above expressed. And out of tenderness to Mr.* Brooks, *I first used other means of keeping, and afterwards of repairing my Husbands Credit, and then stayed long to see if he would repair (in any measure) the wrong done to my Husband, and my self. I desire to be.*

From my House, next door to the Red Lyon in Spittle-fields, *October*, 18. 1655.

Your Servant (in, and for the Truth)

Alice Culpeper.

Mris. *Culpeper* did the 18. of *October*, subscribe this Epistle in Vindication of her Husband's *Reputation*, before Ten Witnesses, as she had done another Epistle on the ninth of *October*, almost in the same words with this, except neer the Conclusion.

THE FIRST BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of that part thereof which we cal Hygieine.

Title I. *Of things not Natural, in General.*

HYgieine *is a part of practical Physick prescribing the means and way of preserving and maintaining the Health, by the use of things not Natural.*

Things not Natural we cal those, which albeit they are to be accounted and reckoned in the number of things Natural; yea, and moreover as such that are necessarily required both to defend and preserve the health while it is enjoyed, and likewise to restore and recover it when absent and lost; yet notwithstanding they do not any way constitute either the Essence; or the Nature of the body whilst it lives; but on the other side often affect and disturb the Body of Man, and impair the health thereof. From whence it is that some have distinguished and reduced them under these two Heads, viz. of things healthful, and unhealthful.

The *Prescription* is spoken to, and compleated in two parts. The *former* whereof enumerates and recounts those things that are not Naturall; and declareth in what manner they affect Mans body. They commonly cal this part, *Dietetical*, in reference unto the diet that is observed. The *other* openeth the Method of preserving the health, by shewing us the way and means how we may so use these things not natural, that they may not, in the least hurt or offend our bodies.

Of Things not natural there are four ranks or Classes. The first containeth those things that are taken and received into the Body. The second, those things in and about which the body is exercised. The third, such things as happen unto the body from without. The fourth and last comprehends those things that are voided forth of the body, to wit, the Excrements.

Chap. 1. *Touching things not Natural, that are assumed, or taken into the Body.*

Article, 1. *Of the Aire.*

THings not Naturall that are received into the body, are *Air*, *Meat*, and *drink*.

Air is a thing not natural, surrounding or encompassing the body of Man, and insinuating it self into it by certain pores and passages.

Touching this Air there are four things observable. First, that it is necessary to the very being of Health. Secondly, That it affects mans body. Thirdly, That there are many differences thereof. Fourthly, That it is subject and Liable unto divers changes and alterations.

And first of al, *That it is necessary and requisite unto the very being and preservation of health*, (yea indeed so far forth necessary, that if any one intercept the said passages of the Air into the body, it unavoidably perisheth in a moment or very short time) appeareth even from hence, to wit, that unless the heart should be cooled, and unless that the Internal fire or heat should be ventilated and excited, and lastly, unless the spirits should continually be refreshed and revived, a man could not possibly put forth, or exercise his Actions. Now the Air is therefore attracted by the Lungs, that it may qualify and temper the overgreat heat of the Heart. The same Air likewise by its motion (as it were with a Fan) ventilates & cooles the internal heat, so that it not only becomes more moderate, but is also thereby excited and stirred up. And lastly, the same aforesaid Air being from without attracted inwardly by the rough Arteries (usually termed *asperæ*) and first of al prepared and wrought upon in the very flesh of the Lunges, and next of al in the Heart and Arteries (those of them more especially that are in the Netlike folding (we commonly cal it *plexus retiformis*) and last of al (most perfectly and exquisitely) in the ventricles of the Brain, by its substance, generateth and produceth spirits.

Secondly, *It Affects the Body of Man after a twofold manner.* First, as it surrounds it either naked or clothed. Secondly, As it insinuates it self into the same, whether it be by inspiration, which is done either by the Mouth according to the taking in and putting forth of the breath; or by the Arteries, according to their dilatation and compression: or otherwise by Transpiration, which is performed al the skin throughout, and in each part thereof by those exceeding smal passages (not unlike unto those of a very fine sive) which the Greeks cal *Porous*, the Latines, *poros*; we in English pores.

Thirdly, *It derives its differences from the quantity, quallity, and substance thereof.* I. In respect of its *Quantity*, it is copious, scant, ful, which last *Hippocrates* (in his tract of breathings or blasts) cals *athrooteron*, that is to say, al at once and speedily breaking in upon us. II. In regard of its *Quality*, 1. *Hot*, and this augments the cholor, melts away the humors, weakens and hinders Concoction; and consequently by dissipating the Native heat it very much shortens the life. 2. *Cold*, which by shutting the pores or passages of the skin, and so hindering perspiration, excites putrid Feavers, or else by compression causeth destillations, forceth the Blood oftentimes out of the Veins, from whence proceed inflamations; and then it extreamly hardneth whatsoever is in the belly. 3. *More than ordinarily moist*, which heapeth up together flegm and store of Crudities. 4. *Over dry*, which (its true) wasts and consumes the superfluous humors; but again it breeds acute feavers through the abundant increase of sharp humors; and it likewise exceedingly dryeth the skin. 5. *Corrupt*, whether overmuch exceeds in the first qualities, or else is rendered impure by reason of vapors arising from Lakes, standing waters, fenny and Mooriſh places; or else such as cannot be cleansed and purified by the through blasts of the wind. 6. That which is the best, which is *temperate in the first qualities*, pure, subject to no infection or polution, seren, clear, sweetly and gently stirred to and fro by frequent blasts and gentle gales of winds, and which is often times moystened with wholsom and healthful showers of rain. III. In relation to its *substance*, it is, 1. Thick, which for the most part intercepts the very sight, and hinders the prospect, so that either we cannot at al discern the starrs, or if we do, they appear unto us much less than at other times, or at least as much darkned and overcast. 2. Troubled or tempestuous, which hath divers of its thicker parts, (as it were made up of their moisture) violently hurried amidst the serene and cleer, by turbulent and tempestuous winds. 3. Thin, which is contrary to the former, transparent, serene, free from vapors, and throughly cleansed by the thorough blasts of winds

Windes. 4. Putrid and rotten, whether it be that it putrefie of its own accord, as wanting ventilation, (as for instance) that which is on every side shut up, and as it were imprisoned by high Mountains, or else that it becomes corrupted from some other cause, as suppose, from the Heavens, the Stars, the Winds blowing from infected places, or from some noysome pestilent vapor, &c. 5. Healthful and wholsome, which hath its original and its whol constitution from and under benign and healthy Climats, is stirred and driven to and fro by wholsom Winds, and is not in the least vitiated or corrupted by the vapors that proceed from any putrid and impure, whether things or places.

Fourthly, The Air taketh its *mutations* or Changes (which *Galen* cals Alteration according to the Constitution) from these ten things more especially.

First, From the *Stars* and Constellations; for both the Planets, and likwise the fixed Stars have in them much of power and influence upon these inferior Bodies. Concerning the influences of the former, we may at large read in *Porphyrius*, in the fourth Chap. of his paraphrase upon the Books of *Ptolomy*, as touching the effects of the stars. And *Hippocrates* writes that most Women conceive at the ful of the Moon. Touching the latter, to wit, the fixed stars, it is easily to be seen, and manifestly perceived even in the lesser Dog-star alone, the *Pleiades* & *Arcturus*. For upon the rising of the Dog-Star the Seas grow tempestuous & fluctuating, Wines work afresh and fluctuate in the Cellers, Dogs run mad, and the like. At the Settling of *Pleiades*, great Tempests and North-east Winds arise; and upon the Settling of *Arcturus*, storms and Hail.

Secondly, From the *different times of the year*, as wel the greater, which by the Physitians (in regard that they have in them the reason of the greatest changes and alterations proceeding from the rising and setting of the Stars of the first magnitude) are comprehended under a septenary or seven fold number; and are commonly reduced unto the Spring, Summer, Autumn, and Winter; as the lesser, to wit, Monthes, Weeks, and Daies. For the Spring is hot and moist. The Summer hot and dry. Rhe Autumn cold and dry. The Winter cold and moist. The Qualities of the Monthes ought to be taken from the sign of the Zodiack that rules, and hath as it were a soveraign power in them. The qualities of the Weeks are derived from the Quarters of the Moon; of which the first is moist, the second hot, the third dry, the fourth cold. The qualities of the daies from the parts thereof; of which the Morning part is in a manner spring-like, the Noon part like unto the Summer, the Evening thereof resembling the Autumn, and the night not unlike unto the Winter: howbeit there is in this but little of weight or moment, and therefore not much regard to be had thereunto.

Thirdly, *From the Winds*, and those aswel common, (of the which some are Anniversary, as keeping their course at one certain time every year; as for instance, those we cal *Chelidoniæ*, *Etesiæ*, *and Prodromi*, which two latter are Winds blowing out of the East yearly, at one certain time, and rising out of ground eight daies before the rising of the Dog-star) others that appertain, and are more usual in some Regions than in other (whether they be from the Earth, or from the Sea:) as proper; such as is that Wind which they cal *Chelerona*, unto those that live neer unto the river *Phasis* in *Cholchis*, *Attabulus* unto the *Apulians*, *Garbas* (a south east Wind) unto the *Sicilians*, *Japix* unto the *Calabrians*, &c. And there take notice, 1. That al Winds whatever do in their own Nature Moisten and refrigerate. 2. That they assume a different temperament (this or that) according to the scituation and condition of those places through which they blow. 3. That of the Septentrinal or Northerly Winds, (when they blow strong) that which we cal *Boreas* (being a ful North Wind) is the most vehement: those that blow at the half point are next unto it; of those that are Collateral, it is to be observed that *Boreas* is more warm and moist than the Easterly wind *Subsolanus*: and likewise that *Boreas* is more cloudy than the West Wind *Favonius*. 4. Of the Oriental Winds, which moderatly heat and dry, when they blow from the Earth even these (when they rise from the Sea) do moisten. That called *Eurus*, which blows from the East in the Winter season, receivs somwhat of the nature of *Auster* or the South Wind; & *Cæcias*, that blows from the East in the Summer season, retaineth somthing of the Boreal or Northern Winds, & is stiled the Gatherer and driver together of the Clouds. Unto the Easterly Wind *Subsolanus* (that blows from the East at the Equinoctial, that agreeth (and may be said thereof) which hath been said of the Winds in general. 5. The Occidental or Westerly Winds are moderatly cold and moist. But in *Vasconia* they are so

hurtful and dangerous, that they seldom or never bluster there, without causing dread and terror unto the Inhabitants thereof. 6. The Meridional or Southerly Winds are Watrish, Cloudy, and such as cause al sorts of Diseases: yet notwithstanding, that which we cal *Phenix*, is less baneful than the *Libonotus*, in regard of its neer approach unto the *Subsolanus*. See (at large and accurately discoursing of these) *Berulam*, and *Frederick Bonaventure*.

Fourthly, *From the other Meteors*. For these Meteors, if they be pure, such as are the burning and flaming torches, the Arrows, Flying Dragons, they produce and cause Fire, and immediate Heat and Dryness of the Air, that I may speak nothing of their pestilent corrupting Quality. If they be impure, such as are the Comets, Thunders, Lightenings, they cause droughts, Pestilences, Barrennesses, Flouds, excessive Heats, &c. What power there is in the Aereal Meteors, and what they can do, hath been declared before in their proper place: Let it suffice therefore to have added this one only thing, to wit, that Plagues and Pestilences are wont to arise, and follow upon great Earth-quakes: concerning which, see *Seneca*, in his sixth B. 11. quest. Chap. 27 and 28. Of the Watry Meteors, Rains if they be of long continuance, they most commonly bring in and cause the putrefaction of the Air. The Dew if it be more frequent than ordinary, generats hurtful and destructive smal Worms. Frost discoloreth the buds of Vines, and the Ears of Corn, and maketh them to look black. Snow maketh the Air thick and gross. Touching these, Consult *Fromondus*, *Keckerman*, and above al, *Cabeus*.

Fifthly, *From the Zones*, of the which therefore one is called the *Torrid*, another the *Frigid*, and a third the *Temperate* Zone. As for Regions of the Torrid Zone, by reason of their excessive heat, the Ancients thought them to be uninhabitable: but we have known the Contrary; and have found them (in regard of equality of the Nights with the Daies, the frequent falling of showers, the scituation of the several parts and places therein distinguished by Vales and Mountains, the neerness of the Ocean unto them, & lastly the gales of Wind that sweetly and gently blow as wel at some cetrain and constant seasons, as at other times extraordinary) to be very Commodious and fit for habitation. The Hollanders have discovered and learn'd the state and condition of the Frigid Zone, when as they sought out a passage into *Cathaia* thorow the Icie Ocean.

Sixthly, From the *Climates*, which are nothing else but the spaces of the Earthly Globe between two Paralels towards one and the same Pole, distinguishing Regions one from the other (in reference to their distance from the *Æquator*) by the space of half an hour in a day, albeit that this difference is not perceptible, or at least not easily discerned, in those Climates that lie and approach more nigh unto the Pole: of al which Climats, the seventh, that runs thorow *Venice* and *Millain* between the twelfth and fourteenth Paralel, is held to be the most temperate: yet not because it is not subject and liable unto any excess or mutation; but in regard that it admits not of such exceeding great Vicissitudes & changes, if we compare them with the Tempests of the extream Regions. And yet notwithstanding a due respect and special regard is to be had unto the proper scituation of each particular Region, because of the general sight and position of the places.

Seventhly, From those *Regions* of the World that are called the Cardinal Regions. For the Oriental Regions are indifferently temperate; and they have clear and pure waters, of a sweet smel; and the inhabitants thereof are wel favoured, sound, and their Women very fruitful. On the contrary, the Occidental Regions are extream sickly and unhealthful; they have thick and muddy waters, and the people thereof are of an il color. The Meridional or Southerly Regions abound with store of waters somwhat salt, sublime, and they that inhabit in them are evermore subject to moist heads, and obnoxious to a flux or loosness of the Belly. The Setentrional or Northern Regions have their waters harsh and cold; the people thereof are dry, long-liv'd, and of a tall stature. The Oriental Regions are more healthy than the Occidental, as wel because the Sun in its vigor dissolveth those moist vapors that it drew up at the rising thereof; as also in regard that it doth not only not dissolve those which al the day it hurrieth along with it self towards the West, but likewise that it excites and stirs up many more vapors in the West, and so leavs them; as also because that there many more vapors drawn up in the occidental, than there are in the Oriental part of the World, in regard that there are in the West far more and (those) far greater Seas, than in the East.

Eighthly, From the *parts of the World*, *Kingdoms*,

Kingdoms and Provinces. For it often comes to pass, even from the very situation of several places, that those which are accounted wholsom and healthful unto one certain place, are found to be baneful unto another part. So the cold north-east wind is unto the Europeans most serene and clear, but in *Libian* region it is exceeding cloudy; and again the south wind is unto those Lybians very hurtful, and so is the south west wind unto the *Bascomians* very pernitious, but on the other side very gratful and welcom unto the *Gretians* and *Italians*.

Ninthly, From *Cities and houses.* And hence it was that the *Caunians* (a people in *Cavia*) through the default of the Air there, became so wan and pale, that there was one heard to say, that dead men walked in that country. Again, the Sun in the summer getting up to a greater heighth entreth not at al those houses that stand to the South; but then (in the winter season) approaching neerer it altogether and wholly shines thorow their windows. And therefore dwelling houses ought in a different manner to be erected, according to the diversity of the inclinations of the several regions in the world.

Tenthly, From the *particular constitution of places.* Where observe, 1. That places standing high, enjoy a pure Air, as being cleansed and purified by the winds that blow throw it; and therefore those places produce and nourish strong, lusty, and long lived inhabitants, by reason of the want and absence of moist excrements. 2. That steep down hil places depressed and (as it were) pend up between other mountaines, are in the summer time even suffocated with the reflexed sun-beames; and in the winter (by reason of the suns absence) are annoyed with overmuch moisture, and thick, clouded vapours. 3. Places that are plain, if so be they have on al sides every thing fit about them, they have then no other property, but that which is taken from the observation of the Climates. 4. Those places that are rocky and open, in the summer have the Air hot, but in the winter cold, & so thin and subtil, that almost no vapours can be elevated and drawen up out of rocks. 5. Places Mountaineous and high are snowy, and therefore healthful by reason of their snows; but when these melt away, those places becom very much clowded. Now if those Mountains are situate to the North east, then those places wil be hot by reason of the reflected sunbeams; but if to the south, and that the winds blow from the North, then those places by means of the snows and winds, are cold, dry, and sound, unless something else hinder. If to the East, then they are cold, because they ruled and swayed by the East. Their Air is thick both in regard they are nigh unto Mountains, as also because they lie open unto the Western Winds. If they be situate to the West they are therefore healthy in regard that they are then exposed unto the oriential or Eastern winds. 6. Those places that are woody are infested with a thick, suffocated, cloudy and turbid Air: among the trees, the Nut tree and Oak are more especially hurtful. 7. Those places that are neer adjoining unto rivers do moisten overmuch. 8. Such places as are fenny, and abound with lakes by reason of their filthy noysom vapors are very apt to generate diseases. 9. Those places that are nigh unto the sea are thought to be healthful in regard that saltness resists corruption and the winds do evermore throughly purge the Air, & because likewise that the Sea in the Winter and in a cold Region renders the Aire warmer than ordinary; but on the other side (in the summer time, and in a hot Country) it makes the Air exceeding temperate. 10. *Cardanus* hath left it for a Truth unto us, that those that are ful of hot Baths do viciate and corrupt the Air of the place, howbeit not so far forth that they hurt those bodies that are strong and able (which are not hot) by reason that they are altogether free from putrifaction. But of these see (I pray) and read (*next after Hippocrates*) *Renatus Morean* learnedly and excellently discoursing of them in his Tract upon *Schola Salernitana.*

Article, 2. *Of Meat.*

Point. 1. *Of the differences of Meats.*

Meat is a thing not Natural, restoring and augmenting the substance of Mans body.

Concerning it there are these five things to be explained. 1. The various *differences* thereof. 2. The *kinds* of it. 3. The *Seasonings* or *sauces* thereof. 4. *Bread* it self. 5. The *time of repast*, or taking of this meat.

The *differences of Meats* are various. I. In regard of its substance it is, 1. *Hard* which is not concocted without much difficulty, but it is easily corrupted. 2. *Soft*, which easily and soon receives a taint. 3. *Heavy*, thick, and gross; and this heaps up a juice, that is thick, fibrous, and earthy. 4. *Viscid, and clammy,*

clammy, which is very difficultly distributed into the veins. 5. *Firm*, which truly makes a supply of much aliment or nourishent, but then it stands in need of great store of heat and strength of Nature for Concoction. 6. *Infirm*, which indeed is easily and soon concocted, but then it breeds and supplies either very smal nutriment, or at the best, such as is transient and of short continuance. 7. *Hard, or easy of digestion*, which accordingly is hardly, or with little difficulty overmastered by the heat of the stomach. 8. *Hardly or easily to be corrupted*, which accordingly (either through its own default, or else by reason of some weakness in the stomach, or lastly by means of some distemper proceeding from things therewithal mingled) is either easily or difficulty corrupted. II. In respect of its *Quantity, it is*, I. *Overmuch*, Either as it refers unto the capacity of the vessells, as it is al of it converted into blood, but then by reason of the too great abundance of humors it threatens the danger of suffocation or choaking, &c. or otherwise as it respects the strength of Nature governing and ordering us; which kind of excess breeds very many Crudities of al sorts. 2. *Too little*, to wit, when either we use but little food, or those meats of little nourishment; or else when we take them not often enough; and this evermore diminisheth the natural strength and powers of the body. 3. *Moderate*, which preserveth the substance of the body, defends the Native heat and maintains the lymmetry of the humors; it likewise sets bounds unto the Excrements, in receiveing of which we are sayd to use a mean, & moderation, when we eat not to satisfy. III. In regard of *its qualities*, it is, 1. *Hot*, which attenuates and makes thin those humors that are thick, cuts and divides in sunder those humors that are temperate. 2. *Cold*, which indeed tempereth the boyling heat of the blood and of the stomach, but suggests matter of windines. 3. *Moist*, by the which the dryness of the parts is amended, and the belly loosened. 4. *Dry*, which though it be not so easily concocted, yet it affords a fast and firm nourishment, and brings a supply of Melancholly Juice. 5. *Sweet*, which indeed (at least, if it be wel compacted) nourisheth, but withal causeth obstructions of the Liver and spleen. 6. *Salt*, which preserves from putrifaction; but if it excessively taken, it burns the blood, and excites a kind of itching. 7. *Bitter*, which clenseth, and cuteth. 8. *Sharp*, which fi eeth those parts that are obstructed, increaseth choller, and excites salt and sharp fumes. 9. *Acid*, which cuts, & if it be simply such draweth the thick Juice downward; if it incline toward a sweetnes it mollifieth and loosneth the Belly; if it tend toward a sharpnes, then it is astringent and binding. 10. *Sowr and Austere*, which if it be taken in before other meats, bindeth; but looseneth if eaten after food. 11. Meats that afford a *good or ill issue*, 12. That which is *simple* or *Physical*; which besides the vertue it hath to nourish, hath likewise the power of altering. 13. *Unwholsome*, from the which there is an ill Juice generated, and such as easily putrifieth. 14. The *Best which is concocted*, affords much nourishment, and that nutriment that it yeilds is of the best; and is not easily corrupted, or depraved with any hurtful quality; and then again it leaveth behind it but very few Excrements. IIII. In respect of *its preparing*, it is, 1. *Crude* or raw, which to this very day the *Abyssines*, *Scythians*, and divers other of the Barbarians take great delight in. 2. *Rost*, the which alone the Peers of Troy are said to have fed upon during the time of the Trojain War; which yields a dry aliment and oftentimes hindereth the passing forth of the excrements: and this if it be extracted forth of the veins, and so shut up on every side that it can by no possible means exhale, it is then in this case very prejudicial and hurtful unto the Body. 3. *Toasted* or broyled, which is over adust, or two much burnt. 4. *Fried*, which with some other kind of external Moysture is dressed in the frying pan; and very sweet (in good truth) it is, by reason of the fat Moisture that attends it: but then again in regard that it doth not so conveniently send forth, the internal superfluous Moisture, but rather attracts and sucks in more of that that is External and superabundant, it is therefore hard of concoction, sending up a favor from the stomach to the Mouth, and burning up the blood. 5. *Boyled*, which indeed (as to the inner part) is dryer than the former, and yet notwithstanding by reason of its external humidity it moisteneth. 6. That which is *Strangled and suffocated*, if it be fitly and equally boyled, it then generates a laudable, temperate Juice, and such as easily finds a passage whether it ought to go. 7. It is either *sauced or not sauced*. But as touching Condiments or sauces, we wil treat further of them in the ensuing discourse.

Point,

Point, 2. *Of the ſorts or kinds of Meats.*

The ſpecies or kinds of meats are taken, 1. *From plants.* 2. *From birds.* 3. *From four footed Beaſts.* 4. *From Fiſhes.* 5. *From bloodleſs creatnres.*

I. *Plants are, Bread corn, al ſort of pulſe potherbs, and fruits.*

I. Unto *bread-corn* there appertain, 1. *Wheat*, Which is hot and moiſt, yielding very much, firm, and moſt wholſom nutriment. The Clamineſs thereof, if any ſuch there be in it, is quite taken away in the due preparing of it. 2. A grain very like unto the former, commonly called *Spelt*, which in its nature and property is next unto Wheat; and nouriſheth more than Barly, but leſs then Wheat; of it is made that we cal Barly broth; but others cal it frumenty. 3. *Rye*, (which by others is termed *Ragga*) out of which in very many places there is a certain kind of bread made; it is hotter than Barly and nouriſheth more than it, but it is harder to be concocted then Wheat. 4. *Barly*, out of which is made that ſpoon-meat which we commonly cal Ptiſan, an excellent wholſom kind of food, opening and cleanſing the paſſages, and eaſily tranſients; but yet nevertheleſs being ſomwhat thin of ſubſtance, it is therefore held to be the leſs fit for the preſervation & lengthning of the life. 5. *Oats*; which heat, afford good and commendable aliment, and ſtop the lask or flux, of the Belly. In ſome places there is a ſpoon-meat prepared & made herof (a kind of gruel) with cows milk, Goats Milk, or elſe with the juice of ſweet Almonds, (commonly called Almond milk) and ſugar. We uſe to bruiſe this oatmeal, and ſo to eat it in fleſh pottage. 6. *Rice*, which by the Eaſtern people is for the moſt part made into bread. It is temperate and with milk nouriſheth very much; but is more difficultly concocted, and yieldeth a thicker kind of juice (which is therefore the more apt to obſtruct) and increaſeth the ſeed. 7. That which we cal *Saracen breadcorn*, which indeed ſufficiently and fitly nouriſhith ſuch as live by their labor, but withal is hardly digeſted, begets windineſs, and is hurtful to the eyes, 8. *Millot* or *hirſe*, which is cold and dry, binds the belly, and is not digeſted without ſome difficulty. 9. That which we call *Panick*, like unto the former; but yet of nothing ſo wholſome a nature and property as the Millet; notwithſtanding being beaten and bruiſed in a Mortar (or otherwiſe;) and throughly purged & cleanſed from its branneneſs, it then affords a kind of pottage not much to be contemned, or loathed.

II. Of the *Pulſe*, there are, 1. The *Beans*, which are Cold, Dry, and Flatulent or windy. They are of a crude and raw Nutriment, but withal ſuch as is very abſterſive, and hard of Concoction, and rendering the ſenſe dull and ſtupid, and the ſleeps turbulent; and therefore an utter enemy to ſuch as are ſtudious, and live ſedentary lives. Thoſe of *Leyden* break them with a Mil, boyl them througly, and being hulled they then make them up into a certain thick white ſubſtance for their uſe, and ſpending. 2. *Peaſe*, which are cold, dry, and windy, eſpecially thoſe that are green: they are Experimentally found to hurt the Nerves; the Broth or Pottage made of them is better than their ſubſtance. 3. *Lentils*, which generates an Aliment that is both cold and thick, of hard digeſton, filling the Head with groſs Vapors very hurtful to the Eyes, and the breeder of much thick blood; eſpecially if they be Eaten with Salt fleſh. 4. A ſmal *Pulſe* called *Cicers*, which by Reaſon of their abſterſive faculty, are moſt commonly ſought out, and made of for Phyſical purpoſes. *Dioſcorides* writeth that thoſe that uſe them, thereby gain a fair & freſh color. 5. A ſort of *Pulſe* yet ſmaller than the former, called *Chichlings*, which obtain a mean, and ſtand (as it were) in the middle place between thoſe kind of meats that are of good or ill Juyce, and eaſily or with much ado concocted, and converted into nutriments. 6. *Vetches*, which ſuggeſt a groſs and thick Juyce, and ſuch as is only fit, (and good for nothing elſe) to generate black choler or Melancholy, and to render the Body coſtive, through overmuch binding the Belly.

III. *Under Potherbs, and in the Number of Garden Plants fit for Food, Herbs or Leaves, Stems or Branches, Roots, and Fruits, are Comprehended*; For as touching Seeds, I ſhal here ſpeak nothing of them. I. Among *Leaves* and branches, are, 1. *Lettuce*, which of al Pot-herbs is abſolutely the beſt, and yieldeth more matter for the generating of Blood, than other Pot-herbs; by its coolneſs it excellently qualifieth and allayeth the boyling heat of the ſtomach, procureth ſleep, and tempereth the heat of the Kidneys: But if a man feed too much thereon, it then extinguiſheth the ſeed. Two ounces of the Juyce hereof taken at once, or for one Doſe, Kils unavoidably. It is Eaten raw, with Oyl, Salt, and Vinegar. 2. *Endive*, which (according

(according to the Opinion of *Galen*) hath its qualities like unto those of the Lettice aforesaid. In other places, it is far fetcht, and stored up until the winter months. For in those places their custome is, with a smal threed, to bind together round like a Globe the Leaves hereof so soon as they are come to perfection, and so to preserve them covered in earthen Vessels. 3. The *Colewort* and *Cabbage*, which is cold and dry, hard of concoction, which affords an Aliment that is thick and gross, that exhales up into the Head Fuliginous Vapors, disturbeth the sleeps of those that eat it, and extreamly weakeneth and Dulls their sight. Its hurtful quality may be corrected, if we take it Boyled in flesh Pottage. The Juyce thereof hath in it a tart Acrimonious quality, & such as excites and provoks the Belly to void its Excrements. That which hath its Leaves spread al abroad, is far wholsomer and better than that which groweth al of a Head, which for distinction sake we cal the Cabbage. It is allowed to be eaten by working and laborious people, but then for a corrective, Pepper must be added and eaten therewith. 4. *Spinach*, *or* Spinage, which cools and moistens, generateth serous or wheyie humors, and is somwhat offensive by its treasuring up windines unless you mingle therewithal (for a corrective) Pepper, Salt, and Butter. 5. *Mallows*, which yeildeth little nourishment, causeth a flux and loosnes of the Belly, and borroweth a grateful & acceptable tast from butter and other Condiments. 6. The like may be said of the herb *Arach*, or *Orach*, and *Blite*, which latter is likewise a kind of Spinach. 7. Beets are cold and dry, and of different parts; the Juyce thereof cleanseth, the substance of it bindeth the Body; howbeit it removeth the obstructions of the Liver and Spleen. The Ancients were wont to add thereto Wines and Pepper. 8. *Asparagus* or *Sperage*, unto which the tender young branches of the Hops are very neer of kin, as being of a temperate Nature; they afford but little aliment, and that likewise none of the best; this Asparagus is very grateful to the pallate, excites and provokes the appetite, it cleanseth, expels Urine, and purifieth the Kidnys. 9. *Watercresses*, which by reason of their heat, are commonly used instead of a condiment or Sauce. *Æquineta* hath added this further of it, to wit, that it is an enemy unto the Stomach, and that it breeds an il Juyce. In time past, the use of it was wont to be very frequent and familier with the *Persians* in their ordinary diet. 10. *Mustard*, which is of a tart and sharp tast, and is withal most apparently hot and dry. And thereupon it is placed and recounted among those Condiments or Sauces which attenuate thick and gros meats. It is in the Vintage time mingled and throughly moystned with new Wine or Must, from whence it hath the name of Mustard. 11. *Of Roots there are*, 1. The *Onyons*, that afford but very little nourisment; but they are of a hot nature, they cut, attenuate, heat and inflame the Blood, and the thinner parts of them being discussed and scattered, they leave behind them a gros and thick Juyce, they incite and provoke unto Venery, cause distracted and turbulent dreams; and are very offensive unto the Head, Eyes, Teeth and Gums, especially in those that are cholerick. 2. *Garlick*, which in the Month of May is by many of the French eaten with fresh butter; and of which beaten together with Wal-Nuts in a Morter, they prepare and make that Garlick sauce that we term *Alliatum*. In Garlick crude and raw there is not Aliment at al, and in that which is boyled there is very little, and that also none of the best. By its extraordinary great heat and dryness it attenuates and cuts asunder the thick Humors; and moreover it is a most exquisite Remedy for the correcting of the pravity, of waters that are gotten together in the Abdomen or Belly, and a special help and means for the enduring of cold. 3. The *Leek*, which hath almost the same properties and qualities with the Forementioned. It is chollerick, and greatly hurtful to such as are of weak Brains; it duls the sight of the eyes; and being often eaten it begets choler of a Greenish color much like unto the Leek it self. If it be in the beginning of the meal Eaten raw with Salt, it then freeth the stomach and Belly from gros and thick Juyces. 4. The *Reddish*, which together with Salt we use to eat raw. But it is fitter to be used instead of a sauce or sallad, in regard it is extraordinary hot, and withal sharp and tart, tiring and wearing out the Teeth. It collecteth together the scattered spirits, breaketh the windines of the stomach by causing ructures or belchings, provoketh Urine, and expelleth the gravel out of the Kidneyes. That Garden Raddish is accounted the best which is brittle and easily broken. Unto the former may be added the wilde or horse Raddish which hath in a manner the like vertues and properties with the Garden Raddish, and is more frequently made

made uſe of for a ſawce than for food, affording little or no Aliment. 5. The *Rape Root*, which yieldeth nouriſhment enough, to wit, Hot, and moiſt; but then it is more ſlowly concocted (more eſpecially that which is raw) and puffeth up the Belly. It is ſomtimes kept until it be withered, and then made uſe of. 6. The *Navew* or *Turnep*, which affordeth more Nutriment than the former, and hath in it leſs of the thick and flatulent Juyce than the Rape Root, provoketh luſt, and excites unto Venery. 7. The *Garden Parſnips*; which yieldeth but little Aliment, and that likewiſe thick; and its Juyce is none of the beſt. It furthereth the Expulſion of Urine, ſtirs up Venery, and expels forth the Cauſes. 8. The *Red Beet*, which being boyled or pickled up with Vinegar, Caraway Seed, and Horſe Raddiſh Root, is preſented and ſet upon the table in the place of a grand ſallad, rather than as a meat, ſince that it very little, or nothing at al nouriſheth.

III. Of *Fruits*, *there are*, 1. The *Artichoke*, which heateth and dryeth in the ſecond degree, is hard of Concoction, and the Juyce thereof none of the beſt. It is by ſome Eaten raw with Salt alone; but by others they are Boyled, and then they add thereto Pepper ſmal beaten, and Butter; if it be Eaten with Vinegar and Oyl it expels and drives forth abundance of Urine of a ſtinking Savor. There are ſome of Opinion, that it excites the appetite, and reſtoreth it when weakened and wel nigh loſt. 2. The *Gourd*, which affordeth an Aliment more than ordinary cold and moiſt, and therefore ſuch as is tranſient and ſtayeth not long in the body, but ſoon paſſeth throw. When it is corrupted in the ſtomach it is then converted into a very Malignant Juyce. Yet ſome there are that conceive theſe Gourds to be leſs dangerous and hurtful than Cucumbers. They are oftentimes ſent to the table either roſted or fryed. The longer and leſſer of them are the more grateful, and indeed the more wholſome; ſuch as grow and increaſe after their hanging up, have in them but little or no Seed. 3. *Cucumbers*; which are cold and dry. *Galen* was of Opinion that theſe were never to be allowed of, or admitted by men in their common Courſe of Diet; but that they were evermore to be baniſhed from their Meals, as moſt dangerous and baneful. For they abide unconcocted in the Stomach until the day following. Yet notwithſtanding they may not unfitly be Eaten (but they are rather thought to be very commodious and proper) if while they be yet green, and before they be ripe, you take them in ſalads, after they been a while kept in a Pickle made of Vinegar and Pepper, and they are then leaſt hurtful unto thoſe that have their ſtomack over hot. The Venetian Phyſitians preſcribe them againſt Peſtilential Diſeaſes by them to cut and divide the Humors. 4. *Melons*, of al ſorts (but principally the Musk-Melon) which are both grateful to the Palate, and withal ſend forth an Aromatical or ſweet ſmel; but in regard that they abound with water from their Humidity, they are thereupon eaſily corrupted; and being once corrupted they degenerate into a Poyſonous Nature, and thereby excite ſtore of Choler. And therefore they ought to be taken in the firſt beginning of Meals that ſo they may the more eaſily paſs through; and then we muſt be very careful to put nothing upon them but meats of a good Juyce, and then after al to drink one draught or two of the beſt Wine. 5. *Straw-berries*, which are moiſt and cold, of a thin Juyce, and ſuch as is ſoon and eaſily corrupted in the ſtomack. They cool the ſtomach and Liver when they are overhot and cholerick; they reſtrain and qualifie the heat of the Blood and Humors, allay the vehement thirſt, drives forth the Urine, and cleanſe the Reins. The beſt and fitteſt time to Eat them is in the beginning of the Meal. They are now and then Eaten with Cream and Sugar; but moſt uſually (as the better way of taking them) they are Eaten out of Wine. 6. *Capers*, which if they be freſh and new, do the more effectually nouriſh, and looſen the belly. If they be eaten with vinegar and oyl they excite and Whet on the appetite unto a deſire after meat, they remove the obſtructions of the Liver and Spleen, and carry forth that Flegm that is conteined within the Cavity of the Belly.

IV. *The fruits of Trees*, *are*, 1. *Apples*, of which ſuch as are ſweet taſted, and withal ſweet ſmelling, yield an indifferent quantity of Aliment, and are a good remedy againſt al ſorts of Melancholy Diſtempers. Such of them as are ſharp and ſour are cold, and extreamly windy. Thoſe of them that are rough, harſh, and not Mellow, are of a thicker Juyce, and therefore deſcend over ſlowly into, and through the belly, albeit the Force and ſtrength thereof was qualified and corrected by the firſt Concoction. Such of them as are wateriſh are of a moſt corrupt Juyce, and have no taſt at al in them. 2. *Quinces*, which are cold and dry, of ſmal nouriſhment, and of hard digeſtion; if they

be eaten raw they are very hurtful to the sinews; if they be taken in the beginning of the meal they render the belly Costive, if after meat, then they loosen the belly, and shut the mouth of the stomach. 3. *Oranges*, which if sowr they are usually put into sauces, and being therewith mingled they are of singular use, both for the stirring up of the appetite, and for the removal of the stomachs nauseousness and loathing: but if sweet they are not then to be squeezed into sauces and so eaten with other meats; but how ever we use them they are of singular bennefit in helping Coughs, and easing the jaws when exasperated and inflamed. 4. *Pears*, which if sweet, they are then of a more moist and cold nature (the muscatel or muscle pears only excepted, which are hot, and more obnoxious to corruption) if they be harsh and sowr, they binde and cool the Belly, & are hurtful to the stomach & the Intestines: they are the better if eaten boyled 5. *Medlers*, which are cold and dry; those therefore alone of them that are milde and mellow are to be eaten; and these afforde but very little nourishment, and that likewise hard of concoction; they are good to stop a vomiting, when there is occasion; and they are also very fit and convenient for a hot chollerick stomach, 6. *Figs*, which are hot and moist; these nourish more then other fruits, and easily descend from the stomach, and pass out of the Belly; and if they be eaten into great abundance, they excite and generate windines. Those of them that have been kept a while til they be dry (we usually cal them *Caricæ*) have in them such an absterssive and clensing quallity, that oftentimes they cause that flux that we cal the Lientery, drive forth the humors unto the exterior parts, provoke unto sweats; and if much eaten they produce a smal sort of lice. 7. *Peaches* (or Persian aples) which are al of them cold, and moist; they nourish but little, and are soon corrupted; such of them as are new and fresh to be eaten before meat; those of them that are dryed or boyled do in some sort lose and lay aside al the il quallity that is in them. 8. *Abrecotes*, or *Apricocks*, (the Ancients caled them Arminian Apples) which are reputed better than Peaches, and more acceptable to the stomach. 9. *Prunes*, the which al of them are cold and moist: The sweeter of them mitigate choller, are easily concocted, and descend through the belly: such of them as are white, and in cholor like unto wax are the worst and vilest sort of them al; those of *damascus* (we cal them damaske prunes) and *Hungaria*, are the best sort of them. While they be new they have in them an excrementitious moisture; and if they be eaten raw; they yield a worse kinde of Juice, and (to speak truth) they over much loosen the retentive faculty of the stomach; but being dryed they are much the fitter for nutrition or nourishment. 10. *Cherries*, which if they be sweet, by reason of their abundant humidity, they are soon corrupted; and so come to generate a sort of smal long worms, and putrid feavers; if they be sharp and sowre, they cool, qualifie the heat of the Liver and stomach, are easily concocted, and pass through the belly, stir up the Appetite, neither do they afford any il Juice. 2. *Mulberies*, which moisten, cool, nourish but little, descend easily through the belly; and therefore in regard that if they be long reteyned in the stomach, they soon corrupt and putrefie, they must only be taken in upon an empty stomach, that is free from cholerick humors. 12. *Grapes*, which if sweet, they are then the hoter, and excite thirst; if they be tart and sour, they are then (by so much) the colder; if ful of a winy Juyce and substance, they are then of a mean quallity and temperament betwixt the two former. If they be new, they afford but little nourishment, lift and swel up the spleen, beget the chollick, and if they be detayned in the body beyond the due and convenient time, they fil the liver and stomach with Crude humors. If they be dryed (we cal them raisons of the sun) those of them that are only sharp and sowr bind the belly; such of them as are sweet afford greater store of nourishment; but those of them that are both sweet and austere or somwhat sharp, are the more excellent of them al, as agreeing with the Liver in their whole substance, and exceeding benificial unto the Breast. *Corans*, which being without stones ad more strength to the body. 13. *Olives*, which being pickled are of excelent use to provoke the appetite, and are more easily digested in the stomach. Those which are most astringent, are used after meals, that the mouth of the stomach being thereby strengthened, the meat may be the sooner passed downe into the belly. 14. *Almonds* which if they are bitter, they exceedingly provoke urine, and by their bitterness breed a loathing of meat; if they are *sweet*, they are hot and moist, yeild plenty of good nourishment, and are therefore good for those that are in consumptions, and very lean. They are not good in chollerick feavers, nor in an ill stomach. 15. *Chestnuts*, which are hot and dry, hard to digest, yeild good nourishment if wel digested

geſted, but it is hardly diſtributed; if they are eaten in too great a Quantity they engender wind. 16. *Walnuts* are hot and dry. Such as are new, becauſe of their moiſtneſs are beſt eaten with ſalt. The *drie* are eaten after fiſh, the moiſture whereof, they do with their dryneſs temper. They breed choler, and make rough the mouth of the ſtomach, the gullet and the wind pipe. 17. *Haſelnuts* and *Filberds*; are colder than walnuts, and afford more nouriſhment, are hardly digeſted and breed an earthy juice. To theſe may be added, *Muſhromes* and *Toad-ſtooles*, which are for the moſt part cold, taſtleſs, of a thick and watry nouriſhment. Eaten not without danger, both becauſe they are of bad juice, and becauſe they are ſometimes venemous.

II. *Birds* which are mans-meat, are either *Land* or *water* fowl: they afford us their *fleſh*, *other of their parts*, and *Eggs*.

I. In *reſpect of Fleſh*, *among water-fowles*, the cheiſe that afford us meat are, 1 The *Duck* both tame and wild, which breed a thick and melancholy juice, ſtop the veins of the meſentery and ſpleen, and are apt to breed Quartan Agues: eſpecially ſuch of them as are continually in the dirt and mud. 2. The *Gooſe*, which if it be tame, is of Excrementitious juice, and apt to putrify, but the tame more than the wild. The beſt of thoſe which live and feed alwaies on Land, are, 1. *Poultery*, becauſe they have temperate fleſh, of good juice, and little excrement. Where note, 1. That the fleſh, of their bodies, is the beſt of al other, and comprehends the praiſe of all birds, as to feed. 2. That Henns are dryer, than the reſt. 3. That the fleſh of Cocks is harder and dryer, eſpecially that of old Cocks, whoſe broath purges the belly. 4. That the Turkey-cock is not inferior to a Capon, either in taſt, or goodneſs of juice; being good for ſuch as are recovering out of ſickneſs, the ſweeteſt parts of them are the breaſt and the belly. They are variouſly crammed fatned and dreſſed with Oiſters, ſpiced, with gelly, with white-broath, boyled, roaſted, fried, preſſed, diſtilled. 2. The *Partrich*, whoſe fleſh is temperate, enclineing a little to dryneſs, of eaſie digeſtion, of excellent juice, much nouriſhment, little excrement, and which is well given to ſuch as are upon recovery, and as are troubled with the whoremaſters Pox. 3. The *Pheaſant*, which equals a Capon in goodneſs of fleſh and juice. 'Tis commended in Autumn and Winter, being better in the wings than legs. A pheaſant Chick is ſweeteſt, when it is ſix or eight weeks old. 4. The *Heath-cock*, whoſe fleſh is of the ſame nature with the former. And is very fit meat for ſuch as are recovering after ſickneſs. 5. *Pigeons* whoſe fleſh is of a thick, melancholick and excrementitious juice, nor eaſily digeſted, nor good in putrid Feavers. The Mountaine and wood-pigeons are beſt. The *Turtle dove* affords little and thin juice, the older of them, breed Melancholy blood. 7. The *Lark*, which engenders excellent juice, and is eaſily digeſted, it is thought by a peculiar faculty to preſerve from the Cholick and to cure the ſame. 8. The *Black-bird*, whoſe fleſh is little inferior to that of kids, in ſweetneſs, eaſineſs of digeſtion, and goodneſs of juice, 9. The *Quail*, which is hot & moiſt, hard to digeſt, of evil nouriſhment, much juyce, much excrement, affording matter for fevers. 10. The *Thruſh*, which *Galen* allows ſuch to feed on, as are of a leane and thin habit of body. *Apicius* terms their fleſh diabolical, becauſe it ſmells ſtrong of Hemlock. They are taken very fat, when Grapes begin to be ripe. 11. The *Sparrow*, which ſome are delighted with at all times, but in winter eſpecially; becauſe they are in the ſummer by reaſon of their Letchery, leaner, dryer, and hotter than at other times.

II. The *Parts of Birds* are, 1. The *Combs*, which are proper to poultrey alone. *Galen* reckons them among ſuch meats as no man wil commend or diſpraiſe. They are thought to incite ſuch as are ſlow, to generation. 2. The *Wings*, which becauſe the ſuperfluous and crude moiſture is waſted away by exerciſe, are of good juice and eaſie to be digeſted. 3. The *Rumpe*, which in ſuch as have ſhort legs, is more fleſhy and fat than ordinary, but ſometimes it makes the ſtomach ſick by its over fatneſs. 4. The *Brain*, which in birds than in four footed beaſts is dryer and harder; in ſuch as feed on mountains, it is more delicate, than in ſuch as lie in the fields and marſhes. The ſweeteſt is that of Cocks, Partriches, and Pheaſants. That of Sparrows and Pigeons provokes fleſhly luſt. 5. The *Neck*, which is thought to hurt the Eye-ſight, by reaſon of blood therein in coagulated. 6. The *Tongue*, which the more muſculous it is, the better it is. *Bruyerinus* writes that the tongue of Geeſe provokes luſt. 7. The *Heart*, which is of a fiberous and hard ſubſtance, is hardly digeſted, and hardly paſſes. Often eaten it breeds melancholly blood. 8. The *Lungs*, which becauſe of their thin ſubſtance are eaſily digeſted and nouriſh little. 9. The *Stomach*, which is for the moſt part fleſhy and hard, that of a

Gooſe is the ſweeteſt. That of fed Henns is rather fleſhy than hard: We cal it the Gizzard. 10. The Gutts, which in ſome kind of birds is couuted a dainty. The Gutts of a larke, which are hard and bitter, are by ſome ſwallowed like pills, to looſen the belly, but in vain. 11. The *Liver*, which by reaſon of its hot and moiſt temper, is of kin to our natural Heat. That of a Gooſe is moſt ſhort and tender, and moſt highly prized. Anciently they moiſtened their Gooſe-meat with milk, to make it nouriſh the more. 12. The *Spleen*, becauſe in moſt birds it is very little, is of no account. 13. The Stones, are beſt in cocks if they are nouriſhed with wheyiſh nouriſhment. They are ſought for by delicate and wanton people as incentives to Luſt. 13. The *Feet*, which becauſe they have little fleſh upon them, nouriſh little, and becauſe they are nervous and tendinous they are hard to digeſt. 14. The *Skin*, which is ſweet in ſuch as are fed up and fatted, but of ſmall nouriſhment, and hard to digeſt; that is the ſweeteſt which covers the Loins of Hens. The rugged and fat skin of the Neck, is better boiled, than roaſted. 14. The *Marrow*, which if it be of the back, it is of the ſame Virtue with the Braines, ſave that is a little harder; if that of the bones, it is more fat and pleaſant; but eaten too plentifully it cauſes ſtomach ſickneſs. 15. *Fat*, which being moderately eaten, with ſalt, gives little and bad, yet delightful nouriſhment. It takes away the Appetite, if wine be drunk down after it, becauſe the ſtomach is ſmoothed, the wrinkles are taken away, and the ſenſe of pain by reaſon of the ſucking of the ſtomach is taken away.

III. The *Egs of Birds* conſiſt of the yolk and the white. The former by propriety of ſubſtance is eaſily inflamed and turned to fumes. The *Latter* is cold and glewiſh, breeds bad blood, and is hardly digeſted. They vary in reſpect of Subſtance figure and concoction. They are, 1. Thoſe of *Henns*, *Partriges*, *Pheaſants*, ſuch as are young and fat, which excel al others. 2. *Ducks*, *Geeſe*, *and Peacocks* Egs, which are counted worſe. 3. Such as are *Smal*, long and white; which are thought to excel others in goodneſs of juice. 4. Such as are *Pale*, as thoſe of Ducks and Geeſe, which partake more of a watry ſubſtance. 5. Trembling *Soft*, which are ſo far thickned by boyling, as that they ſeem to tremble in the ſhell in the hand of the holder, do give much nouriſhment and excellent juice to the body; are eaſily digeſted and diſtributed, and breed blood which is moſt agreeable to the nature of the Heart. 6. *Supping Eggs*, which nouriſh leſs than the quivering or trembling, but they paſs more eaſily and mitigate the roughneſs of the Jawes. 7 *Perfectly boyled* being thickned, which are hardly digeſted, paſs ſlowly down, and afford a more thick nouriſhment. 9. *Roaſted*, are of thicker ſubſtance than boyled, becauſe the Heat of the fire conſumes their moiſture; and if they are quite covered with aſhes, becauſe the fumes are therby kept in, they are the more unwholſom; if they are laid open upon the embers becauſe they breath out their fumes, they are better. 10. *Boyled* they are better than roaſted, becauſe the moiſture of the water, hinders them from being dried by the fire. 11. *Fried*, which while they are digeſted in the ſtomach, do evaporate into nidorous fumes, and corrupt other meats, and breed thick juice. 12. *Poached Eggs*, which *Galen* teaches how to dreſs, are better than boyled or roaſted, if they are done neither too ſoft nor too hard.

III. The *third kind of Meats* are *four-footed beaſts*. Which afford for mans food. 1. *Their Muſculous fleſh*. 2. *Their Head*. 3. *Their Breaſt*. 4. *Their Belly and panch*. 5. *Their Leggs and feet*. *And* 6. *Such things as are taken from, but are not parts of them*.

I. The *Muſculous fleſh*, is frequently uſed for meat, and is hotter with quickning heat than that of fowls, and therefore they grow thrice as big. 1. It is *Oxe-fleſh*, which if of young beaſts, not broken with Labor, 'tis ſo much the better, but ſeldom uſed: if of old beaſts, it is thick, hard of digeſtion, and paſſes not eaſily through the veins, yet is it free from roaping and clammyneſs. It breeds a looſe nouriſhment, hard to digeſt, and produces thick blood. *Hippocrates* has written that it cauſes *cholera ſicca* 2. *Cow-beefe*, which is of a thick & melancholy juyce. 3. *Calves-fleſh*, or *Veale*, which is temperate, of good juice, eaſie to digeſt. Yet it affords ſomwhat a thicker juice than Kids fleſh, Lambs or Weathers fleſh. 4. *Swines-fleſh*, which differs according to the Age, that of Sucking pigs is moiſt, of no good juice, and which eaſily putrifies, and therefore wine muſt be drunk upon it. That of young ſhotterels is better, and gives good nouriſhment. That of young Hogs, eſpecially thoſe of May, is beſt of al, nouriſhes moſt powerfully, and affords firme aliment, to Men flouriſhing in years, very convenient, and for ſuch as are exerciſed with hard labors. That of Old decrepit Swine, is hard, taſtleſs, cauſes melancholy diſeaſes, muſt be moiſtened with wine drunk after,

after. The fleſh of the *Wild boare* or *Swine* is better than that of the tame, both becauſe it is not ſo excrementitious, nor breeds clammy juice. Out of no other Beaſt ſo much fuel is afforded to luxurie, for no leſs than 50. ſeveral taſts are thereout produced, whereas others have each one ſingle taſt. 5. *Sheeps*, which is of too unſavory a taſt, and fit for Country people; it ſmells ſtrong, if it be boyled after the ſolſtice; worſe, if it be roaſt. 6. *Lambs fleſh*, which before a yeare compleat is moiſt, ſlimie, after a year, it is ful of good juice, of a midling conſiſtency, and is eaſily digeſted in ſuch perſons as take paines, and is ſoon diſcuſſed. 7. *Weathers Fleſh*, which is eaſily digeſted, and breeds good blood, if it be of ſuch as are young. 8. *Roes Fleſh*, which is of good nouriſhment, and excells the fleſh of other wild beaſts, in eaſy digeſture, and little excrement, yet is it ſomewhat of a dry nature. 9. *Kids Fleſh*, which being temperate is eaſily digeſted, and breeds good humors, but more clammy than thoſe ariſing from veal. 'Tis flaſhy and void of taſt unleſs it be roaſted. 10. *Deeres Fleſh*, which is drie and hard to digeſt, breeds melancholly blood, if it be of an old Deere, and is apt to obſtruct the bowells. 11. *Hearts Fleſh*, which affords melancholick juice: but if it be wel digeſted, it is not of ill juice: and is thought to ſuch as eat it to have a freſh color.

II. The *Heads of four-footed beaſts* which ſerve for food are the *Oxe-head*, *Calves-head*, *Hogs-head*, *Wild Boares-head*, *Kids-head*, *Hares-head &c.* Of which, thus much may be ſaid in general, that they are hard of digeſtion, of a thick and clammy juice, and very nouriſhing. Their principal and moſt eſteemed parts are. 1. The *Tongue*, which conſiſts of a fleſh by it ſelf, looſe, ſpungy, moiſt and clammy: and therefore it affords a nouriſhment not ſolid, thick, or long-laſting; yet in ſome creatures tis exceeding ſweet, ſoft, of good juice, eaſy to digeſt, and affording no bad nouriſhment. That end which the beaſts are wont to thruſt out of their mother is harder than the reſt. 2. The *Eyes*, which are of no account, ſaving thoſe of a Calves-head, which are compaſſed with much fat and ſoft fleſh, and are involved in thin membranes. 3. The *Eares*, which becauſe griſtley, nouriſh little, unleſs they be eaten with the bordering parts. 4. The *Cheeks*, which, if they are of young beaſts fat and fleſhy, they are not void of good juice. Thoſe of Calves are moſt tender. 5. The *Braine*, which is flegmatick, of thick juice, paſſes ſlowly, and is hard to digeſt. It makes the ſtomach thick, and provokes vomiting. *Varignana* ſaies it is good againſt poyſon, perhaps becauſe of its clammyneſs wherewith the ſides of the ſtomach are daubed. 6 *The Palate*, which is commended in an Oxe. It is covered over with a certain membranous fleſh, and is a frequent Ingredient into minſt pies, Haggeſts, and Puddings. 7. The *Snowt*, which *Galen* counts inferior to the feet in Hogs, and better than the Eares.

III. In the *Breaſt* the *Heart and Lungs* are ſeated. 1. The *Heart* is hard to digeſt, as I ſaid before. The *Salernitans* are of Opinion, that an Hogs Heart encreaſes penſiveneſs, namely in ſuch as are already troubled with Melancholly. 2. The *Lunges* are of a cold and moiſt temperament, of a flegmatick juice, eaſily digeſted and diſtributed, by reaſon of their rarity or thinneſs of ſubſtance, and their Lightneſs: ſome ſay they puffe up the belly.

IV. The *parts of the Belly* are, the *Liver*, *Spleen*, *Kidneys*, *Stones*, *Matrix*, *Stomach*, *Gutts*, *Meſentery*, *the Flanks*, *Duggs or Udders*. 1. The *Liver* of al beaſts, is of thick juice, hard to digeſt, and which paſſes ſlowly. That of a Sow is beſt, eſpecially if ſhe have been fed with figgs. That of Lambs and kids, does more eaſily paſs, and is not ſo thick juiced. The Roes Liver is ſaid to bring epileptical convulſions as well as the goats. The wild-ſwines liver covered with the Cal, is commended. 2. The *Spleen* becauſe it draws thick, dreggy and melancholick blood, affords ſuitable nouriſhment. Thoſe of young ſwine, becauſe they are not infected with ſo bad blood, are not of ſo ill juice. 3. The *Kidnies* are of bad juice, ill taſt, hard to digeſt: thoſe of kids and Calves are commended, becauſe they are neither hard, nor rank. 4. The *Teſticles*, becauſe they have a rank taſt, eſpecially in ſuch creatures as have engendered, are hard and ill to digeſt. But Hogs-ſtones are counted the beſt, and lambs ſtones are not il thought of. 5. The *Matrix* was by the ancients eſteemed a very dainty diſh, and was reckoned of two ſorts, viz. that of a ſow or other beaſt with young, and that of Virgin female; Becauſe it ingenders a cold and crude juice, therefore tis hardly digeſted. 6. The *Stomach*, what nouriſhment it gives may eaſily be conjectured by its conſtitution. 7. The *Smal gutts* which the greeks termed chordas, the Latines *Laſtes*, were anciently a dainty diſh, witneſs

the

the Poet *Epicharmus* in *Megaride*: the thick guts which they called Phuscat, were no less esteemed of. 8. The *Mesentery*, especially that of a fat sucking calf, is a most dainty dish with a little Vinegar. 9. Touching the flanks or *groins* I have nothing to say. 10. The *Udder* was counted for a dainty dish, as may be collected from the Pseudolus of Plautus.

V. The *Extremities* or feet are by *Aristotle* accounted to be of a clammy nourishment. *Mnesitheus* the Athenian, writes, that they and the Head have little nourishing and pure Juyce in them. Some have termed them the Sacrifice of *Venus*. Hereunto I refer the *Sweet bread* and *Brawne*, the sweet bread is a Kernelly, Soft, Spongy and white substance. *Plautus* commends it in his Curculio. That of a Calfe is the sweetest. Brawn is swines flesh hardned, and was highly esteemed by the ancients.

VI. Food taken from Animals being no part of them, is *Milk*; which also affords the parts whereof it consists, *Whey*, *Butter*, and *Cheese*. I. *Milk* is manyfold. 1. *Raw*, which must be taken new milked, least it cause Wind. That of Cows or other Creatures which have newly brought forth their young, is not approved. 'Tis corrected with a little Salt or Sugar. 2. *Boyled*, which is indeed less windy, but because the whey is consumed by boyling, it becomes thicker, and apt to stop the Veins. 3. *Cheesie*, which has much Cheesie substance in it, Nourishes much, but is not so wholsome. 4. *Buttery*, which is more clammy, is hardly distributed, and causes wind. 5. *Wheyish*, which nourishes least of al, and quickly passes through the Belly. 6. *Of leane Cattle*, which nourishes little. 7. *Of Fat beasts*, which is said to be apt to breed convulsion fits. 8. Of *black beasts*, which is better than that of such as are white. 9. *Milk after the bringing forth of young*, which is most liquid and thin, and grows thick in time. 10. *The best*, is luke warm, of equal substance, put upon the Naile, it does not soon run off, light rather than heavy, not clammy but sweet, without smel, white, and in some sort shining, finally which proceeds from an healthy Creature, being made in wel constituted Udders. 11. *Womens milke*, which is very near the best of al other. 12. *Cowes milke*, which is thicker than that of Women, fatter, and more nourishing. It easily obstructs, and is in the Stomach hardly digested. 13. *Sheeps milk*, which is inferior to that of Cowes, and obstructs more. 14. *Goats milke*, which is a little hotter than the foresaid, of thinner substance, and less nourishment, and more apt to loose the Belly. 15. *Mares milke*, which by the thinness and heat of the wheyish substance, wherewith it abounds, is exceeding detersive and clensing. 16. *Asses milke*, which is colder, thinner and more wheyish than the rest, less nourishing and less obstructing, it exceedingly clenses and loosens the Belly, without any acrimony or biting. II. *Whey*, in regard of its watry and Flegmatick substance, cooles and moistens; in respect of its sharp, Salt and Flegmatick parts, it clenses. III. *Butter*, helps the breast and Lungs, brings up flegm, and is good for cold and dry Coughs: taken in great Quantity, it loosens the Belly, and is endued with a strong faculty to digest, discuss, concoct, and lightly bring up. When it is old, it attains an Acrimonious Quality. IV. *There are some Differences of Cheese.* 1. Some is new and soft which is preferred before that which is hard & old: because it nourishes more, & passes sooner through the belly. 2. Some is of *a thin and loose substance*, which is more wholsome than that which is compact. 3. Another sort is *Clammy and dry* which is accounted bad. 4. *Sheeps Cheese*, which is concocted more easily than other sorts, and affords better nourishment. 5. *Cowes milk cheese*, which is next in goodness to sheeps Cheese. 6. *Goats milk cheese*, which is worse than either of the former, as being doubtless more hot and thin. 7. The *best cheese*, is void of Eyes and holes, not over salted, nor foul with hairs, nor wheyish, nor old, nor hard, nor Ranke. See *Gesner of milke, and things made of milke*; *and* Nardius *in his Physical Analysis of milke*, IV. *The fourth kind of meates*, but worse than those of four footed beasts, are *Fishes*, whose qualities wil be best explained by their Differences and parts, Viz. Their flesh and other Members.

I. The *Differences* are taken. I. From *the Place*, in respect whereof, some breed and live in lakes and ponds, others in Rivers; some are Sea-fish, both such as hant the stony places near the shore, and such as live in the Maine Sea; others live partly on land, partly in the Water; others are digd out of the Earth; touching al which observe these following Rules, 1. *Pond-fish*, because they are muddy and little exercised, are ful of Excrements. 2. *Lake-fish*, that live in great lakes, which are watered with Fountaines and Rivers, are better than the former. 3. *River-fish*, which swim

ſwim in troubled Waters, that receive the filth of great Cities, are offenſive to the ſtomach, are of thick ſubſtance, and difficultly voided forth; ſuch as live alwaies in cleare Waters, are better than pond or lake fiſh. *Sea-fiſh* that live in an Northerne Sea open to the winds, by reaſon of their exerciſe, and the purity of the winds, have excellent fleſh. 5. *Maine Sea* fiſh which live in the bottome of the Ocean, are of hard fleſh, are hardly digeſted, but they afford plenty of nouriſhment to the Body. 6. *Shore fiſh* becauſe they live upon the ſcum and purgings of the Sea, may be diſliked: and becauſe they haunt in ſuch places as are inlightened with the Sun beams, and by continual exerciſe ſuch Excrements as are collected from their food, are diſſipated, they are to be preferred before ſuch as live in the Maine Sea. 7. *Stoney place hanting* fiſh, which keep alwaies one place and food, are eaſie to digeſt, of good juyce, abſterſive, light and little nouriſhing: ſuch as roame up and down, by reaſon of their continual motion and the cuffs they receive from the billows, are of an hard fleſh. 8. Fiſh *Dug out of* the Earth have hard and unpleaſant fleſh, and *Seneca* records they were found ſo bad and deſtructive, that al died that did eat of them. 9. Such as *live on Land and Water*, by reaſon of the variety of their diet and motion, are hardly allowed as good to preſerve ſtrength. 10. Fiſh of the ſame kind and ſort, differ in goodneſs and badneſs, according to the healthyneſs & unhealthyneſs of the place wherein they live. Some are better in the Ocean than in the Mediterranean ſeas and contrarywiſe. II. From their *Subſtance*, in reſpect of which, fiſhes are. 1. Of an *Hard fleſh*, which are diſallowed, eſpecially if they be clammy withal. 2. *Soft of Fleſh*, which are beſt of al, if their Fleſh be alſo tender and ſhort. 3. Of a *middle Nature*, which have ſhort but not ſoft fleſh: ſuch as are mullets. III. *In regard of Age*, in which reſpect note. 1. That little fiſh, if hard of fleſh, are diſliked, as alſo the ſofter, becauſe they have a ſlimy ſubſtance. 2. That old Fiſh, do by their Age loſe much of their fleſh. 3. That thoſe of middle Age are moſt approved, becauſe they are neither ſlimy nor dry, IV. *In regard of their food.* 1. Some *Eat fleſh* and are of an hard and dry ſubſtance. 2. Others *live upon ſlime and mud*, which are of Clammy ſubſtance. 3. Such *as feed upon Roots and Herbs* have ſoft and ſhort fleſh, &c. But of theſe ſee my Books of Fiſhes.

II. Among the *Parts of Fiſhes* uſed in Diet, in the Cheife is their *Fleſh*. In reſpect of it therefore. 1. *The Stock fiſh* though being new, tis ſhort, tender, of good Juyce, and eaſily digeſted; yet being dried, it affords a thick nouriſhment, hard to digeſt, and which cannot be overcome, ſave by a ſtrong Stomach. 2. The *Sole*, *Flounder*, and *Place*, being freſh and new, have white and good fleſh, and ſuch as affords plenty of good nouriſhment, and which is not eaſily corrupted. When they are dried, they are harder. 3. The fleſh of a *Salmon* is tender, moſt grateful to the Palate, eaſily digeſted, affords good Juyce, Viz. While it is young. 4. *Trouts* are the beſt of al fiſh that breed in the freſh waters, eaſily digeſted, of much good and thin Juyce: the biggeſt are not the beſt in regard of their fatneſs and clammyneſs. Thoſe are moſt eſteemed of, which are ſprinckled with red ſpots and have red fleſh. 5. *Gudgeons*, afford wholſome nouriſhment, are of good taſt, eaſie to digeſt, and abide not long in the ſtomach. 6. *Millers Thumbes* are like to Gudgeons. 7. A ſmal *Pike* or *Pickerel* has a very ſhort fleſh, not hard to digeſt, and eaſily diſtributed; ſome count it to have an hard fleſh. The River Pike, is better than that of the Pond. 8. The *Sea-Perch*, is according to *Diphilus*, tender, not ranke, eaſily digeſted; the River Pearch has fleſh that is not indeed, ſo ſhort, yet is it not hard to digeſt, nor is it of bad Juyce; others ſay it affords a weake nouriſhment which is eaſily diſſipated. 9. The *Carpe* has moiſt fleſh, ful of a watry rather than a Clammy Humor, and has much Excrementitious Juyce. That is moſt commended, which breeds in ſwift ſtreams and pure waters. It muſt not be eaten with variety of other meats, but by it ſelf. 10. The *Barble* has exceeding white fleſh, eaſily digeſted and diſtributed, and has no ill nouriſhment or Juyce. 11. The *Lamprey* is clammy: but if it be wel ſauced and dreſſed, it affords a pleaſing and wel taſted Nutriment. Some would have it to be ſtrangled in wine. 12. An *Eele* has ſoft and ſweet fleſh, but clammy, ful of Fat and moiſture: ſome ſay there is ſomthing in an Eele, which not taken out is deſtructive to the bowels of the Eater. Howbeit the Ancients ſo highly eſteemed this fiſh, as to account it the Helena or prime diſh at their feaſts. 13. The *Tench* is by *Auſonius* cal'd the poor mans comfort. It is thought to be of ſo bad Juyce that the feeding thereon

ſhould

ſhould cauſe Feavers. 14. The *Herring* has a white and ſhort fleſh, of good taſt, not hard to digeſt, of good Juyce. Being ſalted or hardned in the Smoake, it degenerates from it ſelf. 15. The *Sturgeon* has hard fleſh, Fat and glewiſh. It affords no bad Juyce, only tis hard to digeſt: the younger are moſt pleaſant, and afford much nouriſhment.

III. The *other Members of Fiſhes* are. 1. The *Head* which is mans meat, in ſome fiſh. The Mullet was anciently bought, only for his Head and Liver. At this day the Head of a Salmon, of an Umber or Hallibut, and of a Carp, are accounted dainties. 2. The *Tongue* which in a dolphin is Fat and tender; in a carpe if it be roaſted, tis very fat, & provokes luſt. 3. The *Eyes* which in a Salmon are tender and Fat. 4. The *Beards*, which *Heliogabalus* had ſerved up by whole platters ful, inſtead of ſmalladge and Water-Creſſes and Fenu-Greek. 5. The *Throates* or parts between the breſt and Neck, being ſalted, are pleaſing to the Palate, and according to *Xenocrates* are hardly corrupted. 6. The *Liver* which in ſtock fiſhes or Cods, is counted better than in other Fiſhes. In the Silurus, tis ſo ſweet as to overcome the Stomach. That of the *Wolfe fiſh* roaſted and ſauced with Juyce of Orenges, is not inferior to a Gooſes Liver. Upon the Livers of River Lampreyes, the revenues of *Princedomes* have been anciently laid out. 7. The *Sides* of the ſturgeon and Lamprey are commended. 8. The *Bowels* without which the Gilthead has no taſt, and in the Dolphin their ſpawn is delightful, as alſo their taſt reſembling Violets. 9. The *belly*, which in the fiſh they cal Huſo, taſts like Porke. A diſh has been invented of the Navils of the thin Fiſhes, cut out of their bellies, and barrelled up with Salt, Vinegar, and Fennel. 10. The *Roes* which in the Pike, Huſon, Scarlet fiſh and others, are commended. 11. The *belly* which is fatteſt in the Tuny-fiſhes as *Hiceſius* informes us. 12. The *Guts*, which are commended in the Salmon, Pike, Cod, and Conger. 13. The *Flankes and Groins* which *Horace* commends in a Turbot. 14. The *Loins* which *Antiphanes* relates to have been among the dainty diſhes of Old. 15. The *Taile*, which is deſired in the Pike or Thym. The Proverbe is, The Head of a Carpe, the middle of a Scordil, the Taile of a Pike, are the Gluttons delight. 16. The *Skin*, which in a Tench, is by French Women, preferred before any fleſh. 17. The *Eggs* or hard roes of Perches roaſted on a Gridiron; of Carpes boyled and fried; of the Wolfe-fiſh, Salmon, Huſon, and Marde, Pickled, were a diſh of eſteeme among the Ancients. Thoſe of the Barble, Gripe the Belly intollerably, thoſe of the Pike make it ſwel. And ſo much for Fiſhes.

IV. Among *bloodleſs Creatures*, I ſhal only reckon *Oiſters*, *Snailes* and *Crabs*. I *Oiſters* by the Salt Juyce they have in them, do provoke the Belly to ſtoole, they ſtir up appetite, and incite Luſt, nouriſh little, and make ſome trouble in the ſtomach. II. *Snails* are of an hard fleſh and difficult to digeſt: but if digeſted they nouriſh plentifully, if often Eaten. They breed thick and black blood. That which is ſaid to be good in Conſumptions is in the broth of their Fleſh, eſpecially their hinder parts. In which there is a clammy ſubſtance like hardned cheeſe, eaſily melted, and ſoon chewed, tender, ſoon digeſted and very nouriſhing. Thoſe are beſt, which are leaſt white, and which are found in Vineyards and Orchards. III. *Crabs* which have no Tailes; and Lobſters that have Tailes, do not much differ. They are hard to digeſt; being digeſted; they nouriſh much, but breed thick Juyce. Touching *Creeping Creatures* and other things, uſed for food in other Nations, I ſhal not ſpeak.

Point, 3. *Of Sauces, Bread, and the time of Eating.*

The third thing to be explained touching Diet, is *Sawces*, whoſe Differences, and matters or kinds, I ſhal now reckon up. I. As to the *Differences of Sawces*, they are, either, 1. *Simple*, which are made of the mixture of one only thing with our Meat; or *Compound*, which conſiſt of two or more. The former are heating, cooling Temperate, Sharpe, Aromatick, Bitter, Salt, Harſh, Acid, Sweet, Fat. The latter are wel nigh more in Number, viz. *Dipping-Sawces*, *Licking-ſawces*, *Sugard-ſawces*, *Sage-ſawces*, *Garlick-Sawces*, *Onion-ſawces*, *Tart Sawces*, *Vinegars*, *Sallads*, not to ſpeak of your *black broaths*, *Sawcages*, *Pap-ſawces*, *Bononia Sawcages*, *Weſtphalia Gammons*, of which ſee *Apicius* and *Athenæus*.

II. The *Matter of condiments, are things dug out of the ground, Plants themſelves*, their *Juyces and Honey. Of things dug up is Salt*, which attenuates clammy meats, gives taſt

taſt to thoſe that are taſtleſs, dries ſuch as are moiſt, takes away the ſtrong ſmel of ſuch as ſtinke. The beſt is white, tranſparent like criſtal, thick, void of ſmel, which has an even acrimony joyned with a certain ſweetneſs. If we beleeve the *Mauritanian Phyſitians*, it dims the eyes, waſts the ſeed, and raiſes the ſcab. II. *From plants*, there is, 1. *Peper*, eſpecially the black. Which excellently helpes concoction, and is exceeding good for flegmatick natures. That is beſt which is moſt heavy, ful, black, without wrinkles. 2. *Ginger*, whoſe Heat is thought to laſt longer than that of peper, corects the Crudities of the ſtomach, and provokes Luſt. 3. *Cloves* with which neats tongues, Cowes-udders, &c. are pricked and ſtuck. They heat with a kind of Aſtriction, and helpe the ſtinking of the Breath. 5. *Cardamoms*, which are ſharpe and bitter in taſt. 6. *Nutmegs*, which are uſed to the ſame intents as the former. 7. *Saffron*, which helps the concoction of meat, breeds a freſh colour, opens the ſtoppage of the liver, and has a narcotick or ſtupefactive Quallity in it. 8. *Elder*, whoſe firſt buds pickled in vinegar are kept as a ſallet, and move the bely to ſtool. 9. *Capars*, which being pickled with ſalt, oyl or oximel, provoke appetite, void the flegme which is contained in the Belly, and eaſe the obſtructions of the ſpleen. Touching *Water-Creaſes*, *Onions*, *Garlick*, &c. ſee what has been ſaid before. III. From the *juices of plants* there are, 1. *Sugar*, which ſenifies ſharpe things, blunts the fervor of things biting, makes ſalt things more delicious, overcomes harſhneſs, gives taſt to things inſiped, but withal produces choler in ſuch as are of an hot Nature; and makes black, Furrs, and looſens the teeth. 2. *Oyl*, which if preſſed from ful ripe olives, it affords nouriſhment ſutable to our Natures: and is fit to correct the bad quallities of other meats, and of herbs. Alſo it molifies and looſens the Belly, it takes away al Aſperity, it helps ſuch as are bruiſed, and mitigates pain. 3. *Juice of unripe grapes*, *Citterns*, *Lemmons*, and of *Crabs*, which the French and Italians much uſe, doe coole, bind, and helpe the extravagant longings of women. Hereunto belongs *Vinegar*, which is extream cold and pierceing. The eagerneſs thereof is blunted, with a peice of toaſted bread, wine, raiſons, elder flowers, roſes, ſugar, and ſuch like things. Tis hurtful for mellancholly perſons, and women that are ſubject to mother fits. IV. *Honey* is of an hot nature, ſaving that which is white, and ſeems convenint for healthy people. It eaſily turns to chollet, and therefore it is neither fit for hot natures, nor hot parts, otherwiſe it has a power to cleanſe and reſiſt putrefaction. Mead is made hereof.

IV. In the *Fourth* place we reckoned BREAD, of which in reſpect of the Matter and waies of making, there are ſundry differences.

I. In *Reſpect* of *Matter*. I. Such as *is neceſſary*. 1. It is made of fine flower, and which is moſt nouriſhing to the Body. 2. That which is made of bolted meal, and fineſt flower being taken away, and is next in goodneſs to the former. 3. Houſhould bread which is made of the finer ſort of bran, and nouriſhers leſs than the former, but deſcends better through the belly becauſe of the brannineſs. 4. Of *Courſer bran* which houriſhes leaſt of al, but goes ſooneſt through the belly. 5. Bread of altogether, which nouriſhes very wel, and ſoone paſſes through the belly. 6. *Barley bread*, which if it be made of the moſt excellent barly, is the leſs inferior to wheaten bread; if of looſe and light barly, it is like the wheaten bran bread. 7. *Rye bread*, which if it be black and heavy it burthens the eater, is of ſad and thick juice, and breeds ſtones in the kidneys. II. In reſpect of the matter prepared and quallified, it is. 1. *Leavened bread*, which is lighter and ſooner deſtributed, than the unleavened. 2. *Unleavened bread*, which is of a contrary Nature. 3. *Soure leavened*, which is alſo hard to digeſt, and lies heavy upon the ſtomach. 4. *Salted bread*, which is lighter than the unſalted. 5. *Unſalted bread*, which is apt to breed obſtructions. I ſhal not ſpeak of *Saffron-bread*, *Eye-bread*, *Butterd-bread*, *Cheeſe-bread*, *Sugard-bread*. Hereto belong *the parts of bread*. 1. The *Crum*, of wch that which has been here ſaid of bread is to be underſtood, 2. The *upper cruſt*, which drinks up moiſture in the body, and ſharpens the Heat thereof; but if it be ſcorched and burnt, it breeds aduſt humors and black choler. 3. The *Lower Cruſt*, which is of like nature with the former.

II. In *Reſpect of the preparation*, bread is. 1. *Savory*, in which the leaven and ſalt are wel mingled. 2. *Unſavory* or *taſtleſs* which is contrary wiſe ordered. 3. *Wel Kneaded*, which is neither too litl nor too much, but moderately wrought. 4. *Ill kneaded*, which obſtructs, puſs up, burthens the ſtomach. 5. *Baked in an Oven*, which Becauſe its throughly bak't is the beſt of al others. 6. That

which is baked *on tiles*, or in a *portable oven*; which becauſe it is not ſo wel baked in the bottom, is worſe than the former. 7. That which is *back't on a gridiron, or on the hearth*, is bad, becauſe the outer parts are ſcorched and the inner parts are dough-bak'd. 8. *Bak't under the aſhes* or embers, from which it receives a bad quallity. 9. *Biſcott or Bisket*, which is drying, and if made of fine flower, it affords very little excrement. 10. *New Bread*, which if *hot*, cauſes thirſt, and breeds winds and ſuffocations; if *cold*, tis wholſom to feel on; if it be *two* or *three days old*, tis hard of digeſtion, becauſe of its dryneſs. 11. *Old* bread which is hard and moldy, breeds a melancholly humor; and binds the belly. 12. A *Great Loafe*, becauſe the fire has not ſufficiently digeſted the moiſture thereof, lies heavy upon the ſtomach, and raiſes wind. 13. *A Little Loafe*, becauſe it is more than ordinarily cruſty round about, produces aduſt blood as the material cauſe; and makes the Body dry. 14. *A Loafe* of a *middling ſize*, which is moſt commended. 15. *Light and ſpungy*, which nouriſhes lightly, and makes no obſtructions in the bowels. 16. *ſolid and heavy*, which is worſe than the former. 17. The *beſt bread* therefore is that which is made of fine white wheat meal, the wheat being ripe, not very new, grown in a fat ſoil, not infected with moaths, duſt, cockel, darnel, or froſt, not wet with rain, or muſty with keeping; being wel kneaded, leavened and ſalted.

V. In the *firſt place* we are to conſider of the TIME OF EATING, which varies according to the ſeveral Cuſtoms of natures. The Hebrewes ſeem to have eaten twice a day. Among the Greekes even ſo long as ſince *Homers* daies, their times of eating were diſtinguiſhed into dinner and ſupper. The latter Grecians did eat oftener. The Romans had their Breakfaſt, dinner, after noones bever, their Supper, and Rere-ſupper. Our Age followes the Cuſtom of the Romans, yet thouſands there are, that content themſelves, with a dinner and ſupper only. And ſo much may ſuffice to have ſpoken of meats. They that would know more, beſides *Galen* of the faculties of meats, let them conſult *Morellus* upon Schola Salerni, *Bruyerinus* of Meates, *Julius Alexandrinus* of wholeſome diet, and *Uliſſes Aldrovandus* de Animalibus.

Article. 3. *Of Drink.*

Drink is a thing non-natural, reſtoring the moiſt ſubſtance of Mans Body, and quenching his thirſt.

Touching which two things are obſervable. *The Neceſſity thereof to preſerve Health, and its kinds.*

I. That *Drink is neceſſary for Health*, is hereby manifeſt, in that it reſtores the moiſt ſubſtance of our Bodies, which daily waſts away, it quenches natural thirſt, it carries the fat and thick moiſture through the narrow paſſages, it cauſes the mixture, digeſtion, and liquefaction of meats in the ſtomach, and prohibits the inflamation of that ſame fat juice which is ordained to nouriſh the Body.

II. The kinds of drink are, 1. *Water*, 2. *Wine*. 3. Beer *and Ale*. 4. *Mead*. 5. *Liquors* made of Apples, Peares and ſuch like fruits.

I. Touching *water*, two things are conſiderable, *viz*, its *differences*, and *Correction*. I. In reſpect of the Differences, water is either, 1. *Raine water*, which if ſtormy and cloudy is condemned: if it come down with thunder, it is exceeding light and thin, becauſe the Sun drinks up and draws out the moſt ſubtil parts; yet is it impure and ſubject to putrefaction, becauſe divers vapors drawen up by the heat, are mixed with the Raine. 2. *Show and Ice-water*, which becauſe the moſt ſubtile and light parts are diſſipated, is thick, and hurts the ſtomach, and breeds greivous diſeaſes, of the joints, nerves and bowells. 3. *Water gathered in Ciſterns*, which has much ſetlings, is ſlow in paſſage, oftentimes has a ſtrong taſt and ſmel of chalk, and ſometimes breeds little animals. *Pit-water*, which becauſe it mounts not above the Earth, it is thick, and ſticks long in the bowells. *Obſerve* that ſweet water ſprings out of marley grounds, cold water out of ſtoney, and thin muddy water out of gravelly places. The beſt and moſt hopeful comes from ground that has red ſtones, wel taſted water comes from ſandy ground, cold water proceeds from the bottom of mountaines and from ſtony and flinty places. That water is beſt which is hot in the winter, cold in the Summer. 4. *Fountain water*, which if it come out of a Rock, and runs towards the North, and is not illuſtrated by the Sun, it is unhealthful: if it iſſue directly againſt the Summer-Sun-riſe, tis wholſom: if it run in a flat and plain ground, becauſe the Sun exhales the moſt ſubtil parts, and leaves the earthy behind

behind, tis not ſo wholſom: if it run through *leaden pipes*, 'tis hurtful: if through Sand and pibbles, and draws no dirt with it, 'tis commendable. 5. *River water*, which for the moſt part is mixed, as riſing from many ſprings meeting together, and from ſnow diſſolved in the mountains, and rain water to boot. Its crudity is corrected by the beames of the Sun, which play upon it while it runs ſuch a long tract of ground. It varies according to the variety of Rivers which flow into it, and the Sundery lands it runs through. 6. *Lake and Pool water*, which is the worſt of al others, for it is thick and crude, and many times peſtilential. It offends the Stomach, obſtructs the bowells, corrupts the Humors, and many times is the Cauſe of putrid Feavers. 7. The *beſt Water*, is that which is tranſparent, void of all ſtrange taſt or ſmel, is ſoon cooled, ſoon heated, is light, and in which fleſh and fruits are ſooneſt boyled. II. The *Correction of waters* is performed by boyling, by which not only the Crudity and Coldneſs is amended, but alſo the earthy and bad parts are ſeparated, which when the water cooles, ſettle to the bottom. See of this ſubject, *Pamphilus Herilacus*, touching the qualities of water and wine.

II. There are certain differences of wines, I. In reſpect to the place where they grow, there is 1. *Vinum Falernum*, which is of an excellent juice. 2. *Wine of Crete* or Malmſey, which eaſes a cold ſtomach and cures the Colick. 3. *French wines*. 4. *Rheniſh wines*, which are thin, moſt fit to ſtrengthen the Heart, and reſtore the forces of the Body. 5. *Hungarian wine*. 6. *Spaniſh wine &c.* II. *In reſpect of its ſubſtance*, wine is, 1. *Thin*, which eaſily penetrates, ſuddenly, reſtores ſtrength, opens the paſſages, provokes ſweat and urine, but nouriſhes little. 2. *Thick wine*, ſuch as is the black, red, ſweet and harſh, which nouriſhes moſt; but it ſticks long in the body, heates the ſame, and dries it, and ſometimes breeds obſtructions. II. *In reſpect of color*, wine is, 1. *White*, which heates leſs then the yellow and Gold-coloured, if beſides the color, it be withal thin of Subſtance. 2. The *Gold-colored* which is next to white, and if it be thin withal, is excellent. 3. *Red*, which moderately heates, breeds good blood, and troubles not the head: if it be thick withal it baſtens obſtructions of the ſpleen and liver. 4. *Pallet wine*, is much of the ſame nature. 5. *Black wine*, which is of a thicker ſubſtance for the moſt part ſweet, very nouriſhing, and breeds thick blood. While it ſticks long in the bowells, it obſtructs them, and fills the head. III. *In reſpect of Taſt*, 1. There is *Sweet wine*, which nouriſhes wel, is pleaſing to the palate, bowels, lungs and joints, nor diſturbs the Head, but becauſe it is thick, it breeds obſtructions, and is eaſily turned into cholor. 2. *Harſh wine*, which has a weaker heat, ſtaies longer in the belly, and pierces to the paſſages of urine, is good for fluxions; but becauſe it hinders ſpittle it is not good for diſeaſes of the Cheſt. 3. The *midling ſort*, which is beſt of al. IV. In *reſpect of ſmel* it is. 1. *Fragrant*, which reſtores ſtrength by its very ſmel, encreaſes the ſpirit, ſtrengthens al the faculties. 'Tis good for old people, ſave that it fills the head, and weakens the nerves. 2. That which *has no ſmel*, which is neither ſo greedily drawn by the ſtomach, or affords matter ſo fit to engender ſpirits. 3. That *which has a ſtrange ſmel*, which is hurtful. V. In reſpect of Age, it is, 1. Muſt, which by its windyneſs breeds the cholick, and hinders the voidancie of Urine, 2. *New wine*, which yet retaines the ſweetneſs of muſt, is excrementitious, not eaſily diſtributed into the body, and breeds fluctuations therein. 3. *Old wine*, which works upon the nerves and troubles the brain. 4. *Middle-ag'd*, which is beſt for al Intents and purpoſes. In which nevertheleſs there is great variety. Some beare their Age, others ſoon looſe their ſtrength. *III. Beer* is in uſe among the Northern Nations where little or no wine growes. 'Tis made of wheat, barly, rie, oates, either ſimple or mixed together; and is preſerved with Hops. It has alſo ſundry differences. I. From the *matter*. 1. Some is made of *wheat* which nouriſhes, heats and moiſtens more than that of Barley; but it breeds a more clammy juice, cauſes obſtructions, provokes urine, and moves the belly to ſtoole. 2. *Barly-malt beer*, which heats leſs, by reaſon of the barly; but becauſe it has much hops, it becomes not a little heating, affords more thin juyce, and is more diuretick. 3. *Oaten-drink* which is of the ſame quality with oats. 4. *Rie-beer*, which nouriſhes very much; but breeds obſtructions and ſtops the Urine. Hereunto belong the differences of beer, from the waters it is made of, viz. poole, river, pit water &c. which alſo varie the faculties and ſtrength of beere. II. *From the Age*, it is, 1. *New*, which is unwholſome, eſpecially if it be troubled: for it ſtops the paſſages, and is bad for ſuch as have the ſtone. 2. *Wel-purged and ripened*, which is more wholſome.

III. In *respect of the place where 'tis made*, we have, 1. *Poland beer*, which is made for the most part of wheat, nourishes wel, and Heates moderately. 2. *Dantzick beer*, which is like a syrup, nourishes such as are used to it very wel, in others, it causes thirst. 3. *Hambrough beer*, which is commonly made of wheat, is of good tast, makes a man have a fresh colour, expels the urine; if it be taken too largely, it makes a man have a red face. 4. *Lubicks* Beer, which is too strong, makes the Head heavy, and hurts a mans health. 5. *Goslar beer*, which at the first tasting seems sweet, and soon after imprints a winy tast upon the tongue. It is healthful. 6. *Embden beer*, which is subtile, clear, and piercing, at first bitterish, afterwards sharp, it drives forth urine and choler: and therefore 'tis commended in the Jaundice, and in Fevers. 7. *Brunswick beer*, called Mum, differs not much from the former, save that it is thick and more windy. 8. *Rostock beer*, which quenches thirst, expells the Urine, nourishes little, and is good in the summer time. 9. *Servestan beer*, which hangs long in the hypochondria, and sometimes causes sharpness of Urine. 10. *Newburg beer* in Thuringia, which is wel boyled, and nourishes; if it be taken too plentifully, it causes dimness of sight: some have grown blind by too much use thereof. 11. *Erfurt beer*, which conduces very much to health. 12. *Torgave beer*, which breeds good blood, and by its aromatical tast strengthens the principle members. 13. *Wittenberg beer*, which is like the Rheue beer, being ill-boyled. 14. *Rauschenburge beer*, which is commended against the stone. 15. *Paderborn beer*, which breeds thick blood. 16. Beer of *Brabant*, *Gelder*, *and Zutphen*, which breeds the scurvy. 17. *Flanders-beer*, which is very commendable, especially their double beer. 18. *English beer*, which makes the drinkers fat. 19. The *Rhenish beer*, which is for the most part base and hurtful. 20. *Colen beer*, which is better than that of Brabant. I pass over the *differences* taken from the vessels, which also change the faculties. They are kept, sometimes in pitched, sometimes in unpitched vessells. *Mead and Metheglin*, do for the most part Heat more than wine, especially if spices be added thereunto. But it easily turns to choler, because of the Honey.

Chap. 2. *Of non-natural things done by a Man.*

NOn-*natural things which are done, are passions of the Mind, Motion and rest of the Body, sleepe and waking, which are of great moment towards the preservation or violation of Health.* Touching *affections* of the Mind, and their Action upon the Body, these things are cheifly to be observed. 1. That *Moderate affections* preserve health, and make no change in the Body. 2. Such as *pass their bounds*, oft times disorder the body, and sometimes bring sudden Death. 3. If you consider the good Affections or passions, 1. *Love* if it exceed, because it vehemently inflames the spirits in the Heart, endeavouring to draw the thing beloved to it self, and therfore sending the spirits forth to meet it, does often times cause palpitation of the Heart, sometimes madness, fainting, &c. 2. *Cheerfulness*, if it be *moderate*, recreates the Heart and vital spirits; if it be sudden, and in too great a quantity, it so dissipates the spirits, which the Heart therein sends into the outward members because of its over great dilatation, that it oftentimes brings death. 3. In *Evil Affections or Passions*. 1. *Sadness* by little and little, dissolves the spirits, cooles and dries the body, spoiles digestion, causes watching, and breeds melancholy diseases. 2. *Fear*, dissolves the strength of the Body, by reason of the sudden recourse of the Heat, Blood, and spirits, into the outward parts, causes a smal pulse with refrigeration of the external parts, and is sometimes the cause of sudden gray haires, even in young Men. 3. *Anger*, in which the *Spirits and* Blood do as it were boile in the Heart, and are violently moved, from the inner to the outward parts: it agitates the spirits and Humors, Heats the whol body, and breeds Fevers. Tremblings of the joints, and Palpitations of the Heart, do often invade angery persons. Also women are thereby brought into danger of Abortion. Anger hardly ever kild any body, because the Spirits are thereinfreely and forcibly moved; if any died upon occasion of anger, of necessity there was some other natural disorder in the body.

II. That Motion is necessary for Health, is hence apparent, in that by encreasing natural Heat, it furthers Nutrition; by moving and agitateing the Spirits, it discusses vapors and excrements;

excrements; it makes the body after a ſort hardy, by adding ſolidity to the parts, by their mutual Attrition. Now according to its *Differences*, it works diverſly upon the Body of Man. The *beſt* is that which exerciſes al parts of the body alike. The *next to that*, is whereby al parts are moved, but not equally; the *lighteſt of al*, is that which exerciſes one only part. I. *Two much Motion*, exhauſts the ſpirits and ſolid parts, cooles the whole body, diſſolves the ſtrength of the Muſcles, Nerves, and Ligaments, and hurts the Eye-ſight. II. *Swift motion* renders the body thin and compacted. III. *Slow motion*, rarifies and encreaſes the Fleſh. IV. *Vehement motion*, makes the body hard, lively, but leane withal. V. *Continued and equable* Motion, becauſe the members are weakened thereby, as being much, it wearies the more. VI. *Unequal motion*, becauſe it is parted with ſpaces of reſt, wearies leſs. VII. *Diſtinguiſhed and ordinate motion*, brings leſs wearyneſs, ſince Interruption brings reſt, and the reſt is cauſe of leſs wearyneſs. VIII. In *hot places* it burns more, in moiſt places it moiſtens, becauſe the bodies being rarified by exerciſe, are moſt readily diſpoſed to receive al the qualitie of the Air and Places. IX. *Among motions cauſed by a mans ſelf*, I. *Leaping without Interminſſion*, ſtirs up natural heat, but hurts the Head by concuſſion and the Breaſt by compreſſion, while the back is bowed. Leaping *on high*, is good for the Hips, but bad for the breaſt; *Downwards to leap*, clenſes the Head from ſuperfluities, and ſtrengthens the thighs. With *Springing*, it is good for old Diſeaſes of the Head, and brings matter which tends upwards, downe into the lower parts. 2. *Running*, if it be *Vehement*, is good for Fat and moiſt bodies, but it is bad for ſuch as are troubled with any kind of Head-ach. If *Running be moderate*, it excellently warms the Body, excites appetite, and though at firſt it move defluxions, yet it afterwards in tract of time ſtops them. A long courſe *fore right* by little and little performed, diffuſes the fleſh; but renders the bodies thicker. *Backward*, if it be gentle, it is good for the Head, Eyes, ſtomach, Loins. A *Circular* motion diſtends the fleſh and belly, and very much offends the Head, *uphil*, tis bad for the Breaſt and thighs. *Downhil* it very much affects the head, it ſhakes the bowels, troubles weake hips: upon *plain ground*, it does al that has been ſaid. The *body being covered*, by moving ſweat, it moyſtens and heats the fleſh, but it makes the bodys il colored, becauſe the pure air does not come at them, to clenſe the ſame. The body being *naked*, it draws out great plenty of ſweat, it brings away the humors in inviſible exhalations and does more burne the body. 3. To *excerciſe ungirt* by hurling a weight, by reaſon of the vehement ſtraining to throw the ſame, the vehemency of the motion and bending of the muſcles, does make limbes to grow firme, and purges them from excrements, but this excerciſe muſt not be uſed by ſuch as have weake Breaſts and Kidneys. 4. *Darting* is uſeful to get a good habit of Body; and therefore *Æſculapius* and *Apollo* were thought to be the firſt Maſters of darting. 5. *Moderate walking abroad, continued without reſting*, makes the body pure, it helps defluxions and ſuppreſſion of the courſes. *Swift* walking, does heat much, and abates the greatneſs of the fleſh. *Slow walking*, is convenient for ancient and weake people: becauſe it ſoftens bodies exhauſt with immoderate Labours, and purges them, by opening the Pores. *Too much walking*, takes away the trembling of the body, diſpels winde, and very much diſorders weak heads. *Much walking* does help ſuch as are troubled with Infirmities of the Head and Cheſt, and whoſe lower parts are not nouriſhed. *Little walking*, is fit for ſuch as muſt walke after meat and who feel an heavineſs in their bodies. *Long walking right out*, is good for the head, but it does too much drinke up the humidities. Long *and Quick* is good for the Hickup. *A ſhort walke* compounded of motion and reſt, by reaſon of the frequent turning and returning, is labourſome, and weakens the head by frequent turnings. *With labour of the thighs and going upon the heels*, it is good for a moiſt Cheſt and a convulſioned wombe. *To goe on tiptoe* is good for ſuch as are blear eyed, and coſtive in their belly. To *goe uphil*, does more weary the body, becauſe it is as it were loaded in that motion, it moves ſweat and hinders the breath, and it is exceeding bad for weak Knees. To *walk downhil*, draws from the Head to the inferior parts, but it weakens the Thighs. *To walk through even Plains*, affects the body by the Univerſality of the Motion, ſuch motion is ſooner finiſhed by reaſon of its affinity with Nature. To *walk upon uneven grounds*, is good for ſuch as are ſoon weary with walking. walking over *rough grounds*, fils the Head. *Walking over deep Sands*, makes moſt of al to ſtablith and ſtrengthen al the parts of the body. To *walk in a cloſe place*, ſubjects a man to intemperate, vitious and thick aire, which fils

if

the whol Body. To *walk in the open Aire*, if by the *Sea-side*, it dries, and attenuates thick Humors; if by *Lakes* and *Rivers*, it moistens, but is bad for Epileptick persons; if *in the maine Land*, it is not so good as by the Sea; if in the dew, it moistens, not without dammage; if in places not subject to the wind, Causes Humors to exhale, and digests Excrements, and is commended in Collicks proceeding from a cold Cause; if in the North wind, it Causes coughing, but it quickens the senses; if in the *South wind*, it fils the Head, and loosens the Belly; if in the *West wind*, tis the wholsomest of al other; if in the *South-East* wind, it smites the Body; if in the *Sun*, it hurts a mans Head, it melts what is hot, and makes that which is dry, yet dryer. Touching *walking in the shadow* observe. I. That we must avoid trees ful of dew; because the surface of the trees being melted by the dew, an harmful liquor drops upon the bodies of such as walk under them, which bites and Chops the outward parts. 2. That walking is most wholsome, which is performed, under the Myrtle, lawrel, or bay, and among sweet-smelling Herbs. *When the Skie is clear*, it lightens a man, exhales Vapors through the pores, makes a man breath wel. *When the Skie is Cloudy*, it causes heavyness, fils the Head. *In the Morning*, loosens the Belly, expels sluggishness caused by sleep, procures appetite, and is good for moist constitutions, for it dries up the Humors out of the passages. *An Evening walke* prepares a Man to sleep, disperses inflations, and hurts a weak head. *After Meat*, a little walk, is good for those that are accustomed thereto, and whose meat does hardly descend. 6. *Standing upright*, universally considered, is bad for such as have a weak Back, or are troubled with Inflamation and Ulcers of the Kidneys: Considered particularly, *before* meat, it is good to void the Excrements of the Belly, for persons asthmatical, and to provoke Urin, and strengthens the Legs; but tis not fit for such as are subject to swimmings in their Head, because in that posture the Vapors mount into the Head. *After meat*, if it be *Moderate*, it assists the descent of Meat into the bottom of the Stomach; if it last long, it sends plenty of Vapors into the upper Region of the Body; it throws down a multitude of Humors, into the nether parts, weakens the Chest, and vitiates the Bladder, and the whole Action of making Water. To *stand in the shade* has the same effect as walking therein, the difference is only in more or less. To *stand in the Sun*, does burn a man more in the Summer time, then to walk therein, and in a body impure, it very much hurts the Head, &c. X. *Of motions caused by another*, there is. 1. *Riding on horseback*, which if it be quiet and slow, breeds great wearyness, and makes men unfruitful as to generation; if the pace be *Swift*, and not very frequent, it makes those that ride, enclined to bodily lust, by continual motion and rubbing of the genital parts, and shakes the body in a wearysome manner, and is very bad for the Chest: if it be upon a *Trotting horse*, it offends the head, the Neck, the back, and Buttocks; but it brings gravel from the Kidneys: to *Ride ful Speed, or on Gallup* is too heating, duls the senses, and offends the Eyes. 2. *Gestation or being carried*, in general, in persons sound and sickly, encreases Natural heat, and discusses the multitude of the matter: but in persons that cannot sleep, it brings rest, by digesting those excrements, which slip from the Head into the Stomach, &c. Particularly. Riding *in a Coatch*, if it be not violent, is good in diseases of the Head and fluxions of the Bowels, but it is hurtful to Epileptick persons, because the motion of the wheeles makes them giddy: if a man ride with his *Face to the hind Wheels*, tis good for a weake sight, and helpes much the Obfuscation thereof. If it be *very fast*, *Celius* commends it to make a man lean that is over Fat. In an *Horse-litter* tis convenient for healthy people, that are to follow their business after dinner, and it was anciently the manner to carry sick people on that fashion in an horse-litter. Lethargick, and Nephritick persons *lay along*, &c. For so the Morbifick matter was made fit for Expulsion; those that were troubled with some light and long lasting Diseases, and were in the perfect declination of Feavers did sit. To be carried in a *Chair* or *Sedan* is good for cold Natures and which evidently decline. But of al these Exercises, consult the learned treatise of *Mercurialis de Arte Gymnastica*, which I shal peradventure over-look, and cause to be again published with some notes of mine. IV. I shal not need to speak of Rest; al that can be said, may be collected by any one, from what we have spoke of Motion.

III. *Sleep* is also necessary for preservation of Health, and likewise to refresh the wearied Members of our Bodies, and to restore the spirits, which are the Soules Instrument, in the performance of her Actions. If it be *moderate*, not only the wearyed forces of the body are

are thereby refreſhed, and the ſpirits waſhed with dayly labors, repaired; but alſo the heat is drawn inwards, by which means the Aliments and crude Humors are happily digeſted in the whol body; the whol body and eſpecially the Bowels are ſweetly moiſtened, and the body is made generally ſtronger; cards are removed, anger appeaſed, and the mind made more peaceful; immoderate Evacuations, ſaving ſweat, are ſuppreſſed; and eſpecially, ſleep is good for Old people. Contrarily, *Immoderate Sleep* obſcures the ſpirits and makes them ſluggiſh, and ſtupefies the mind and Memory, and blunts the Edge of Natural heat, by augmenting crude humors, and ſtopping the Iſſue of ſuch as are ſuperfluous. Alſo ſleep which is taken after the body is any waies Emptied, does dry and extenuate the ſame.

IV. Alſo *Watchings* are either *moderate* or *Immoderate*. The former excite the ſpirits and render them more lively, diſtribute the ſpirits and heat into al parts of the Body, help the diſtribution of Aliment, and further the Expulſion of Excrements. But *Immoderate watchings* conſume and diſſipate the ſpirits, eſpecially the Animal, and dry the whol body, eſpecially the brain, encreaſe Choler, ſharpen and enflame the ſame; and in concluſion, the heat being diſſipated, they cauſe cold Diſeaſes.

Chap. 3. *Of Non-Natural things Externally uſed.*

NOn-*Natural things Externally uſed, are*, Bathes, Oyntments, *Frictions*, and Garments.

I. Touching *Bathes*, obſerve. I. That they alter as much as the Aire it ſelf, but diverſly according to the difference of Temperatures, and there is in them more Artifice than in the Air. II. That they frequently and very much hurt, Cheifly perſons not uſed to them, Plethorick perſons, ſuch as are Cacochymical, have Catarrhs, are ſubject to Inflamations and *Erycipelas*. III. That they are made, either of *Liquors*, as freſh water, Medicinal Fountains, Decoctions of Herbs, Oyl, milk, Wine, &c. Or of *Vapors*, or of ſome ſolid ſubſtance, which is hot, as ſand, Salt, Preſſings of Grapes. IV. *The Vapors of freſh water*, Heats, firſt moiſtens; relaxes; afterwards Melt congealed liquors, and procures ſweat; finally, by long uſe, it dries. V. *Freſh Water hot*, of it ſelf Moiſtens, but at the firſt it heates; afterwards the hot Vapors breathing forth, it cools; attenuates, and dries: *Luke-warm*, or ſuch as is moderately warm, Cools ſuch as are over hot, heates thoſe that are overcold, and withal Relaxes, and uſed an indifferent time it fattens, and digeſts the Excrements beneath the Skin, and by long tarriance therein, it reſolves and diſcuſſes them, wherefore to hot leane Natures and to ſuch whoſe heat is biting, it is good, being tarried in an indifferent while; alſo for Melancholick perſons, Hectical perſons, ſuch as have dry Feavers and are thirſty: alſo it chaſes away wearyneſs, Mitigates pains, is good for Diſeaſes of the Skin. *Cold Water* cooles, but withal ſtops the paſſages, makes the Skin hard and compact, ſtrengthens the whole Body, recalls heat into the lower parts of the Body, by which means it helps Concoction, and is a good Remedy againſt hurts ſpringing from external Cauſes, if we uſe it moderately and rightly. It is bad for ſuch as grow, & uſe not good diet, nor exerciſe, or are inclined to crudities and ſtoppages, and breed ſharp vapors, VIII. *Artificial Baths* are to be judged of by their Ingredients. IX. *Waters of Medicinal Wels*, do alter the parts, according to their Quality, ſo that the *Sulphureous* do dry, heat and reſolve: the *Nitrous* do dry and cleanſe, &c. See of them *Fallopius*, *Mercurialis*, and *Baccius*.

II. As for what concerns *Anointings*, they were anciently uſed before and after bathing, as is every where apparent in *Galen*. But becauſe they are now grown out of uſe, I ſhal therefore ſay nothing of them. See *Galen* in the ſecond Book of the Faculties of ſimple Medicaments, Chap. 2. and 4. Alſo in the ſeventh Book of his Method of Curing, Chap. 6. and *Mercurialis*, in the firſt Book and 8. Chapter, of his Gymnaſticks.

III. The effects of *Friction* or *Rubbing* are various according to the Differences thereof. 1. *Hard* friction hardens the Body, contracts the fleſh and makes it compact. 2. *Soft*, Softens, Looſens, and diſſolves the ſame. 3. *A middle Sort*, has an effect between both. 4. *Much* Rubbing, leſſens the Fleſh, diſſolves the ſame, and Cauſes leanneſs. 5. *Little*, leavs it in the ſame Quantity it was in. 6. *Indifferent*, encreaſes the fleſh. 7. *Morning* friction is beſt uſed after the voidance of the common ſuperfluities of the Body, being uſeful for ſuch as are dried, and find a wearyſomneſs upon them.

them. *Evening Friction* is good for wearyed, dried persons, and such as nourish not.

IV. *Hippocrates* treats of *Garments*, where he speaks of the ambient Aire, in the sixth Book of his Epidemicks; I conceive best to place the consideration thereof among things externally applied to the body. Al Garments in general, do in some measure heat the body, both by keeping off the cold Air; and keeping in the steams of the body, and introducing a true and genuine Heat. The effect of Cloaths varies according to their Differences. 1. *Silk-Taffaties and Grogarans*, do heat, and because they are soft and tender, they soften. 2. *Plush* and *Velvet* by how much they are deeper and richer, so much the more they heat. 3. *A woolly* garment heates and dries much. 4. A Garment of *Skin*, if ful of hairs, is warmest of al other. 5. A *Scarlet* garment, cals forth the spirits and Humors, with which it has Analogy from the Centre to the Circumference, and therefore is accounted hot. 6. A *Perfumed* Garment hurts an hot brain, and breeds the Head-ach. 7. A *Linnen* Garment whitened with Lime, does bite the Skin, and Causes an Itch. 8. An *Hempen* Garment, is more dry than one of Linnen.

Chap. 4. *Of Non-Natural things which are voided and retained.*

NOn-Natural things which are voided and retained are, both those which in the nourishment of the Body Nature retaines to restore the decaied substance thereof, as also those parts which she separates and voids forth as unprofitable.

Touching them, *observe in general.* I. That *Excrements* do vary according to the Concoctions. Some are *simply* such, as Urin, internal Vapors, fumes, Dandrifs, Sweate, Moisture, Ichor, Tears, Flegm in the Eyes, Menstrual blood, Hemorrhoid-blood, spittle, Snivel, Pose, Droppings of the Nose, Eare-Wax, Dung: some are *for the sake of Children*, as Milke, Seed, Mothers-blood. II. That they are necessary in point of health, which continues in good case, if they be conveniently voided; but is prejudiced, if they be either retained, or unseasonably voided forth.

Particularly, three of them are most considerable, Viz. *Excrements* of the *Belly*, *Urin*, and *Venereal*. I. The *Excrements* of the *belly*, if they are often voided and carry with them the Vitious Humors, and so lighten the Body, they confirme health: if too *frequently* and *too long*, the body is defrauded of necessary Aliment, and begins to pine away, the forces of the body are weakened, and many times the guts are as it were shaved. *If not in due time*, they hinder digestion by putrid vapors, hurt a weak head, and breed molestation to other parts of the Body. II. The *Urine*, if too long kept in, does not only burthen the bladder and neighboring parts, but oftentimes does so stretch the same, that it cannot afterwards contract it self. And in case the Reins do not draw unto themselves the Wheyish moisture, remains mixed with the bood, and being spread al over the Body, it affords matter for the Dropsie and Cachexy. *III. Seed* unseasonably retained, causes heavyness of the whol body: and if it be corrupted, it Causes most greivous accidents: being voided in *too great a Quantity*, it dissipates the natural heat, weekens the whole Body, heaps up crudities, hurts the Nerves, brings the Palsie, and weakness of the mind.

Title, II. *Of the Method of preserving Health.*

Chap. 1. *Of preservation of Health in general.*

THe Method of preserving Health, is a Doctrine which prescribes rules how to use the Non-Natural things in such manner as to preserve the body in health.

The *End* thereof is therefore, the Conservation of Health, which consists in Preservation of the temper of the whol body, and al its parts, and of their specifical proprieties and occult qualities, and of the due shape of the Organick parts, and of that unity which is common to both.

Those Precepts, are either *most General*, *General*, or *Special*.

I. The *most General*, are as it were common principles, by which convenient diet is governed, and they are these following. I. That whatever is according to Nature must be preserved. II. That we must alwaies aime at a Mediocrity. For too much of any thing is an enemy

Enemy to nature, which *Phocylides* excellently expressed, *Eate and drink and discourse with moderation. Moderation is the best thing in the world, and Excess is destructive.* III. That sudden changes are to be avoided. For much at once, or suddenly, to empty or fil, to heat or cool, or any other waies to alter the body, is dangerous, as *Hippocrates* has it in his second book, Aphorisme 51. IV. We must not lightly alter Custom. For Custom is a new nature, and things to which we have been long time accustomed, though bad, are not so troublesome as those to which we have not been used, as *Hippocrates* in his 50. Aphorisme of the second Book, instructs us. Now after what manner Custome is a new Nature, and what power it has over our actions natural, vital, and animal, and over the parts of our bodies, see in *Renatus Moreau* upon the 15. Chapter of *Schola Salerni*, p. 215. and *Senertus* in his *Paralipomena*, page 48. V. Bodies perfectly in health, must be cherished with things like; such as recede from the exact state of Health, ought by little and little, & modrately to be reduced to a contrary condition. VI. We must so far be careful to preserve occult proprieties, as that the temper of the body may not be hurt. VII. The inbred Heat of al the parts, must be preserved with things moderately hot, and moderately astringent.

II. The *General* precepts concerning the nonnatural things, wil be delivered best according to their order in which we reckoned them, in the foregoing Title.

I. The *Aire therefore*, 1. Must be chosen temperate, pure, not stinking, free, as being most healthful; and that aire must be avoided which is ful of corrupt exhalations. 2. We must by al means avoid [illegible]hopping out of an hot aire into a cold, or [illegible]f a cold into an hot. 3. A cold aire must be altered, by a fire, by hangings, by a stove; an hot, with cold water powred out of one vessel into another, or sprinkled upon the floore, by strewing of roses, water lillyes, boughs of willow and Agnus Castus. A moist, with a bright fire, and perfumes; a drie, by sprinkling of water, and with moistning herbs; a pestilential, with burning aromatick woods, and franckincense. 4. Those that have leisure must walk out into the fields to enjoy the open aire. 5. In the the morning 'tis good to walk about the mountaines, in the evening about the fountaines and rivers; both because the Aire is in those parts more pure and bright; and about the fountaines and rivers, 'tis lightened and clarified by the setting Sun; also because in the morning, we are not very hot, by reason of the foregoing night; in the Evening in regard of the heat of the Midday sun, we may be delighted with the coole aire of the waters. II. Touching *meat*, we must observe some things in general, and some in special.

I. In *general* observe, 1. That we must choose such meats as are most temperate and familiar to our Natures, such as wel bak't bread, flesh of beasts, and such things as they afford for food, fishes, &c. Of bread the best is, that which is wel leavened ful of eyes, wel kneaded, and wel baked in an oven not too hot, seasned indifferently with salt, and made of the best wheate. 2. Also we must use a most simple diet, and of several sorts, to avoid satiety, provided that it be not at the same meale of different substances, and different qualities, but of the same nature, that it may be digested with the same heat, in one and the same space of time; and that we eat not over much. 3. We must have a special Eye to custom, by the power whereof, some have fed on poyson without hurt. 4. The worser, but more pleasing meat and drink, is to be preferred before that which is better, and not so delightful. For the Stomach greedily attracts, straitly embraces, and happily digests such kind of meats.

II. Particularly we must have an Eye to the *Quantity*, *Choyce*, *Sawces*, *Time*, and *Order*: of which I shal treat, when I handle the diet of persons of a middle Age.

III. Of the rest, there is nothing to be said in general: only this may be added, that we must according to the advice of *Celsus*, take heed lest in health we consume, that which should assist us in sickness. It is better, daily to use moderate exercise, to prevent the collection of superfluous excrements, than to use purgations or other medicaments.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Chap. 2. *Of preservation of Health, in Special; and first of the good Habit.*

Article, 1. *Of preserving the Health of wel habited persons.*

Point, 1. *Of preserving the Health of Infants, Children and youths.*

SO *much shal suffice to have said of preservation of Health in general; let us now see how health is to be preserved in several sorts of people.* And this preservation is *either of wel constituted*, or *Intemperate persons.*

Wel habited or wel constituted persons, are either *Infants*, both such as are in the womb, and such as are born; or *Children*, or *Youth*, or Men of *Middle Age*, or *Old Men.*

I. *Children in the Womb*, wil fare wel, if the woman with child, shal do some things and avoid other some. Among *things to be avoided* are, 1. Aire which is moist and southern, the stink of candles put out, and which arises from Castoreum, brimstone, and such like things. 2. Also the smell of strong herbs, as rue, penneroial, Mint, and of sweet smelling things, if the woman be subject to mother fits. 3. The sight of things horrible and fearful. 4. Sharp, bitter and salt meates, which open the mouthes of the veins, such as are, Garlick, Onions, Mustard, Parsly, &c. as also such as cause wind; to which ad strange things, and hardly to be obtained. 5. Motion which is violent either of body or mind, especially in the first months; also vacancy of motion, which collects humors in the body. 6. The use of venery, at the begining of conception, least the child prove abortive. 7. The use of Bathes, least the ligaments of the womb should be loosned. 8. Too much laughter, or imagination. 9. Costiveness of the belly, which may be cured by the use of broaths, and of Manna. Among *things to be used and done* are, 1. Temperate Aire, drie rather than moist, 2. Meat of good juice and plentyful in the last months; Apples, Quinces, which are thought to strengthen the child; also the eating of toasted Figs every day before meales is commended, when a womans time draws nigh, because 'tis thought, that the secondine is hereby more easily separated and brought forth. Also saffron and Cinnamon are commended after meales. 3. Moderate use of good wine or cleare beer. 4. Motion somewhat strong in the last month, to dilate the parts. 5. Moderate use of venery about the same time. 6. A Bath of luke warme water, which opens the Genital parts, and prepares them to the birth. 7. More sleep than watching. 8. The use of such things as comfort the child; among which are Balsamus Embryones, and sweet almonds with Malmesey, as most excellent.

II. *Infants new borne* for the first septenarie are thus to be ordered. 1. As soon as they are borne, the dung must be avoided by giving them sugar penids with oile of sweet almonds or honey, to prevent the Falling-sickness. They must not be put to a nurse, unless the mother be weak, subject to sickness, or bad manners. 3. For two years or eighteen months it must be nourished with milk, as that it be in the meane while inured to other meats. Pap made of wheat meale and milk, usual amongst us; which because it breeds gripings and obstructions, either the wheat flower must be dried in an Oven; or white bread crums moistened with Hens broath, must be used in stead thereof. 4. Its diet for the first three yeares, must encline to moisture. 5. Being new borne, it must be washed every day; after the third month to the seventh, every other day; from the seventh month til it is weined, twice every week. 6. About the End of the first seven years it must be seldom bathed; and not soon after meat or drink, least crude juice be drawn into the body. 7. Wine must be avoided til the one and twenteth year, according to *Plato's* precept. 8. The more it grows, the more it must be exercised, but so as care be taken, that no member be distorted, or untimely dried. 9. As it encreases in growth, it must by lit[illegible]d little abate of its sleep.

III. *Ch[illegible]* require, 1. More solid meats, but moderately drie, least their moisture be suddenly diminished. 2. Stronger exercise, yet somewhat less than their strength can wel beare.

IV. To *such as are ripe*, must be given, 1. In *general* such kind of diet to begin with, as they are to hold al their life, that they may inure themselves thereto. 2. Meats, which in little Quantity do nourish much. 3. Stronger Labours, that their bodies may be fitted for al kind of exercises, & al sorts of weathers. 4. They must avoide Venery, which does too soon dissipate natural Heat, and cooles the body. *Particularly*, Studients ought to have a Care of their animal spirits, that they may be

plentiful, neat and pure. Such are bred by ſubtile and pure aire; Thin diet, and of good juice, due evacuation of excrements; avoidance of unſeaſonable ſtudying, by which crudities are multiplied, and the body made ſickly.

Point, 2. *Of preſerving the Health of middle-aged perſons.*

Wee cal that Middle-Age, which taking its beginning from the third ſeptenary, runs through the four ſextenaries following, and is finiſhed in the fifteenth yeare, ſo as to comprehend Adoleſcence, Youth, Virility, and ripe Age.

We ſhal preſerve the Health of this Age, if we ſhal obſerve ſome things, touching *Meat, Drink, Affections, Motions, Sleep, Bathes* and *Excretions*: and if any error be committed, we muſt mend that the following day.

I. In *Meat* reſpect is to be had, 1. Of *Quantity*, touching which obſerve. 1. That it muſt be ſo much, as is requiſite to reſtore the ſtrength of the body, & not to burthen the ſame, which may be gathered, by the ſence of hunger ſix or ſeven hours after eating; by belching, abſence of Heavineſs and ſmel, quiet ſleep, abſence of watchings, and bad taſt in the Mouth, and if the Head be not heavy at Sun riſe, and a man be fit for any buſineſs. 2. We muſt cheifly have reſpect to three things, 1. The nature of the Aliment, in which reſpect, Meats hardly digeſted taken in overgreat Quantity, are more hurtful than thoſe eaſily digeſted, ſo taken. Plenty is pernicious when it has a bad quality joined with it, unleſs it be ſome waies diminiſhed by the ſweetneſs thereof. Thoſe who have a cold ſtomach, ought to eat leſs; becauſe ſuch a ſtomach deſires more than it can digeſt; the hot ſtomach may have more, becauſe it digeſts more; thoſe whoſe ſtomach is temperate, may make their appetite the meaſure of their eating, not eating before they feel themſelves hungry. 'Tis better that the Heat of the ſtomach exceed the meat, than that the meats ſhould exceed the Heat of the Stomach. 2. The kind of Body and courſe of life, and the Labours of a man; in reſpect to which thoſe that are idle muſt eat leſs, becauſe they digeſt leſs; paines-takers muſt eat more, becauſe their Heat is augmented by exerciſe. 3. The time of yeare, and Conſtitution of the Heavens; in reſpect of which we muſt eat more in the winter and ſpring, becauſe then our ſtomaches and Inwards are naturally hotteſt. And the contrary muſt take place in Summer. 3. We muſt by Faſting, ſpare diet, ſleep, quiet and Vomiting correct any error committed, either through bad cuſtome, or allurement of eating. Oft times nature being by the takeing of ſome good food, invited to digeſtion, has ſet upon ſome Crudity which before ſhe could not maſter. II. Of *Choyce*, where note firſt that the fleſh of beaſts, is more familiar to our Nature than any other food. 2. Of *Fouls*, we commend a duck of a yeare old, in the winter, and therein the Pulp of the breaſt, the Liver, and the after-parts; of a wild foul the wing, from September to Januarie. A *Gooſe* of a yeare old, in the winter, and therein the breaſt, Liver, and after parts; Goſlings of a month old, in the ſpring and ſummer. A *Capon*, of a yeare old, from October to April, and therein, the wings, the rumpe, and the fleſh along the breaſt bone. A *Quail* in Auguſt, September, and the whol winter. *Young pigeons* of three or ſix weeks old, of which the thighes, and belly are the principal parts. An *Hen* of a yeare old, in January, February and March, and chickens of ſix or ſeven weeks age. A *Turkey-Hen* in the winter, her breaſt and belly, whoſe chick is beſt in the ſpring, of two or three months old. A *Partrich* from October to the ſpring, in al its parts, but cheifly in the wings. Whoſe chick, of ſix or eight weeks old, in July, Auguſt and September, is meat for a Prince. A *Pheſant* in Autumne, and winter, in its wings rather than Legs, whoſe chick of ſix or eight weeks old, in the Summer, is moſt ſweet meat. A *Thruſh* of a month old, in Autumne and winter. III. Among *four footed beaſts* are approved the *Oxe*, from September to March, eſpecially if he be five yeares old; his chiefe parts are the Breaſt, Loines, and Muſcles of the Hips. A *Rabbit* in winter and ſummer, its back parts, hips and wings. An *Hare* in cold winter. A *Leverit* or young hare of two or three months old, at al times. A *Kid* in the ſpring, of a month or two old, it is better to eat of its hinder parts, ribs, belly, head and feet, than other parts of the Body. An *Hogg* of two yeares, in the winter, the fleſh on its back-bone, Loines, Ribbs, Eares and Feet. A *Pigg* at any time. A *Calfe* from December to May, its Loins, breaſt, Belly, Head, Liver, Kidneyes. I forbeare to ſpeake of Fiſhes, that I may not outgoe the bounds of a compendium. III. Of *Sawces*, touching which obſerve, 1. That ſtrong & healthy perſons, muſt

uſe very little ſawce. 2. Wee muſt abſtain from ſuch as differ much from our conſtitution. 3. Wee muſt uſe ſuch as come neareſt the temper of the meats we eate. 4. In the Summer, and ſuch as are of a chollerick Conſtitution cold ſawces muſt be uſed, in the winter and in flegmatick Conſtitutions hotter may be allowed. 5. Wee muſt ſo uſe ſawce, as never to eat more thanthe heat of our ſtomach can digeſt. IV. We muſt have regard to the *time*, that is to ſay, how often and when we muſt take food. Touching both which points obſerve in general. 1. That we muſt not eat much and often, as the champions of old were wont to doe; becauſe that is good neither for the body nor the minde. 2. It is better to eat often and a little, than much at once: for ſo neither ſhal the ſtomach be oppreſſed, nor the body Pined. 3. So often at our pleaſure, as we feel our ſelves hungry. Now this varies, according to age, Temperament, kind of Life, cuſtome; yet the moſt healthy courſe for ſuch as are exerciſed with moderate labours is to eate twice a day; hard labours may eat four times a day. Nor muſt we eat, as ſoon as ever we feel our ſelves hungry, nor muſt we defer too long after Hunger ſummons us. For the former breeds crudities, the orifice of the ſtomach being provoked by reaſon of its exquiſite ſence of feeling; the latter fils the ſtomach with bad humors. 5. Cholerick perſons, lean people, ſuch as uſe much exerciſe, muſt feed often. For the former doe eaſily faint away through faſting; eſpecially if choler be ſhed out into their ſtomach. The latter have their bodies apt to tranſpire and ſpend. The over exerciſed doe diſſipate much. 6. To cold and moiſt perſons, to fat and corpulent, ſuch as are buſyed with little or indifferent labours, leſs meat is to be given, for the contrary reaſons. A Temperate man may eat twice a day. 8. Becauſe al the meat is not digeſted in the ſtomach at one and the ſame time; but one part deſcends into the guts before another, there needs no ſuch ſubtile enquiry about the ſpace of time which muſt goe betweene dinner and ſupper; Provided there be no manifeſt ſigns of Crudity and repletion, the ſupper may be foure, five, or ſix houres after dinner. 9. We muſt ſo keep to an houre of eating, that we ſometime tranſgreſs the ſame, leaſt exact cuſtome may occaſion ſome danger, when we are forced to miſs our time. 10. We muſt alwaies have great regard to cuſtom. For thoſe that are accuſtomed to eat twice a day, if they miſs their dinner, are troubled with heart-burning, ſharpeneſs of urine, &c. 11. Although tis Scarce determinable, whether a man that is in health, wel tempered, and at his owne diſpoſe, ſhould eat more largely at dinner or at ſupper; ſeeing there are ſtrong reaſons on both ſides, and concoction in the ſtomach, ſeems to be better by day than by night, as we finde by experience, that it is better, in the night than in the day; yet is it certain, that ſome kind of meats are better at dinner than at Supper, as onions and other vaporous meates; and that not only old perſons, but thoſe alſo which deflect from a good ſtate of health, and are troubled with Catarrhs, weakeneſs and ſwimming of the Head, ought to ſup more ſparingly than dine. V. Of *order*, in reſpect whereof note. 1. Becauſe al meats are changed into chyle, and thoſe that are ſooneſt digeſted, are drawn by the Liver, ſpleen, and guts; it matters not with reference to Coction and generation of Chile, in ſuch as are in Health, what meats are eaten firſt and what laſt; yet it is beſt to take liquid meats before thoſe that are ſollid, becauſe they are ſooner reduced into act, and by their fermentation doe help the Coction of the other meats; alſo to take laxative meats before ſuch as are binding, if the mouth of the ſtomach be not looſe beneath, leſt being retained long in the ſtomach they bind the belly; ſuch meats as are apt to corrupt muſt be taken before others, that the orifice of the ſtomach being looſened, they may the more eaſily paſs away: aſtringents before Laxatives, if the retentive faculty of the ſtomach be weake. 2. Corruptible meats are moſt conveniently eaten alone, an houre or two before any other; leſt being of a divers Nature, they defile and corrupt the Chylus.

II. Touching *Drink*, take theſe Rules. 1. We muſt drink ſo much, that our meat do not ſwim in our ſtomachs. Moderate drink moiſtens the body, cheriſhes the ſpirits, helps the diſtribution of meat, &c. Overmuch drownes the heat of the body, breeds crudities, diſturbs the mind. 2. We muſt drink between whiles at our meals, and we may drink after meat, if our meat paſs not eaſily out of the ſtomach; but not til digeſtion is over. If you drinke during your digeſtion, Coction is troubled, and the meate is drawn crude unto the Liver. 3. We muſt not drink faſting: becauſe it weakens the nerves. 4. It is moſt convenient to drink a little and often at meals, than to fetch al off at a draught or two: the former

mer manner quenches thirst, the latter breeds fluctuation in the stomach. But see touching dinners and suppers *Bernhardus Paternus*, and *Stuckius* in his first book of the Feasts of the ancients, Chap. 14.

III. The *Affections* ought to be moderate; and therefore we must be obedient to reason, whose part it is to bridle them.

IV. The motion of the Body ought to vary, according to the Nature of several Bodies, the time, place and manner. And therefore. 1. Leane persons must be moderarly moved, strong persons strongly, respect being had to custome; touching which *Hippocrates*. Persons used to daily labours, although they are weak and old, do more easily undergoe their daily labours, than persons unaccustomed, though strong and yonge. 2. While a man is hungry, or meat remains undigested upon his stomach, he must not labor, for if he doe, the nourishment wil be drawn undigested into divers parts of the body: but he must not continue too long fasting neither, for then, the natural heat wil be dessipated, and bad humors wil be brought into the stomach. 3. Motion must goe before and follow after eating, but such as is light. The former removes such excrements as stick in the narrow passages; the latter, brings down the meat, into the bottom of the stomach. 4. Those whose head is weak or ful, must not walke in the Sun. 5. Motion and Rest must follow one another interchangably. 6. Men must leave off exercising, when their face begins to be coloured, and sweat begins to break forth. 7. A man must not study presently after meat, least the heat be called forth of the stomach, and the brain be filled with vapours.

V. *Sleep*, as to the time, ought so long to continue, til the meat is digested, and the spirit restored. It must not therefore be continued beyond nine hours, nor must it be less than sixe. Nor is sleep in the day time commendable, unless a man have passed the greatest part of the night without sleep, otherwise the Head wil be filled with vapours. Also that sleepe is not allowable which is after Sun-rise, which by its beames opens the passages of the body, and cals forth the humors and spirits from the Centre to the Circumference: as for the manner of lying in bed, it ought to be upon one side, begining on the right, that the stomaches digestion may be assisted by the Liver, the thighs and armes being moderatly contracted, the head a little high, the rest of the body as softly reposed as may be. As for the place, the moon-beames must be avoided: Let the bed be soft, fit to keepe off the injuries of the aire. Whether the Head should be covered or no, I leave as a thing doubtful.

VI. Touching Baths, observe these following rules. 1. They ought to be neither frequent nor long; for they dissipate natural heat, and cause a redundancy of il humors. 2. We must not goe into the bath, before our meat be digested, least crudities be drawn into the body. 3. We must not eat nor drink in a bath. 4. We must come out of the bath before we we be weary, nor must we eate or drink, before the heat be expired. Concerning washing of the head and feet, I shal only ad, what followes. The former is not good in Head-ach, or Catarhs; in other cases, it opens the pores, and lets out fumes: the latter drawes humors from the Head.

VII. Excrements, because they are daily accumulated, ought also daily to be voided forth. And therfore, 1. A man should goe to stoole as soone as he rises. 2. If he cannot doe that, his belly must be moved with the broath of an hen, and other lenitives. 3. The Excrements of the third Digestion, must be expelled by exercises.

Point. 3. *Of Preserving the healths of old People.*

By old people, I Understand such as have attained to fifty yeares age. But their Age is divided into *green old age*, which reaches from the begining of the eight septinary to some part of the ninth, and old age it selfe precisely so called. The part of Physick which takes care hereof, is termed, the Regulation of old age.

Now we shal provide wel for the health of Aged persons, if we shal observe some things in *General*, other things in *special*.

I. In *General*, we must indeavor, because in old age the body daily dries away, that the said dryness may be prevented, and that a diet hot and moist may be used.

II. In *Particular*. 1. Let the *Air* be hot and moist, and let the cold winter air, be conquered and driven away by Art. 11. Let their *Nourishment* be of good juice, and easie to digest (some commend honey to wast away flegme) and let them take a less quantity than formerly, lest too much over whelm their natural heat. Let them eat thrice a day rather than twice; nor let them ever (if possible) offende

send in the Quantity of their meat. Somtimes let them change their Diet. III. Let their drink be either thin Wine, fragrant, of middle Age, fleam colored or yellow, or mead, or beer. IV. Let them *avoid passions of the mind*, least their weak Natural heat be dissipated, or suffocated, and a consumption be caused. V. Their accustomed exercises, are not wholly to be omitted, but let them use light exercise before meat. Moderate frictions are commended that heat being excited after sleep, the distribution of their meat, may be more happily accomplished. VI. Let their *Sleep* be long: and let want of sleep be removed, by washing their feet near bed time, and other sleep procuring Remedies. VII. Let their Excrements be conveniently and seasonably voided forth; and because aged persons are commonly costive, because of the dryness of their temper, let them use emollient and abstersive things, as honey, Figs, Raisons, terpentine, &c. See *Sebizius* of the Diet of aged people.

Article, II. *Of Preserving the Health of Intemperate Persons.*

By intemperately Complexioned Persons, we understand three kinds of men, which deflect from the best temper, Viz. Such as are simply *Intemperate*, which indeed want their most exact health, yet can sufficiently perform the actions of life, nor are inclining to any Diseases. *Declining Persons*, which are turning from a temperate state towards some Disease, which is known by the threefold kind of Symptoms, and if they be not helped, they fal into the said Disease: and *Persons recovering*, who recollect themselves from some Disease. For the first, for Hygieine, particularly so called; for the middle sort Prophylactice; for the last, *Analeptice* takes care.

I. Touching *Intemperate Persons*, note. 1. In *General*. If they are not to be reduced into a better condition, they must be preserved with things alike in general and in special, or as they are wont to speak, in quantity and degree: if they may be reduced, they are by little and little to be used to contraries. 2. That an hot and moist temper, because convenient to our Nature, must in no wise be Changed. 3. If Dry Distemper, must be kept off, as much as may be. II. *In Particular*. 1. *Hot and dry persons*, lest they over inflame a fretting heat, or heape up sharp Excrements, must avoid hot soultry aire, hot meats, anger, over great Meditations; they must drink plentifully, but the drink must not be strong. They must use frequent Baths of fresh water, long sleep, and shun the use of hot and dry things. 2. Persons hot and moist, if moderately such, preserve their Temperament, and follow al things moderately, lest contracting plenty of Excrements, they fal into putrid Diseases. 3. Cold persons require, both hot meats, which stir up heat and consume it not, and seasonable Evacuation of Flegmatick Excrements. 4. *Dry Constitutions*, must have moist meats, and baths of fresh Water. 5. Such as are *Cold and Dry* have an unhappy constitution, which must be holpen with long sleep, frictions which strengthen the Natural heat, and discuss it not, and with a bath of fresh Water. 6. In *Cold and moist* persons, coldness must be corrected, and the moisture preserved as much as may be. Temperate exercises do stir up the Natural heat, whereby it is inabled to conquer the moisture.

II. *Persons Declining*, because in regard of a Plethorick and Cacochymical disposition, encline to sickness, must in the first place use rest and abstinence; and in case these suffice not, they require Blood-letting and purging. Therefore, at the beginning of the spring Flegmatick and Melancholly Humors, about the end thereof Choler, and about Autumn, black Cholerick Humors are to be purged. A pil of Aloes Rosata, taken an hour before supper, but not too often lest it hurt the Liver, may suffice to Empty the matter which sticks in the stomach, and first passages.

III. Touching persons, neither sick nor wel, but recovering, two things are to be observed. 1. That they fal not back again into their sicknesses. 2. That they may soon recover their perfect health. And therefore. 1. Because such reliques as are left in Diseases after the Crisis, wont to cause relapses: if there be as yet any superfluous matter remaining, it must be drawn away by little and little, and the parts are to be Roborated. 2. If there be no matter over, the Body must be carfully nourished, with moist Diet easie of digestion, and of good nourishment. 3. Bodies that have been long extenuated, must be repaired by little and little; such as have been suddenly decaied must be quickly repaired. 4. These things are cheifly to be used, which respect the Causes of the weakness, and may resist the Morbifick Dispositions. And so much for the Method of preservation of Health.

THE

THE SECOND BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Treating of the Preternatural Affections, or Disorders of Mans Body and their Respective Signs.

The Introduction.

SO much may suffice to have spoken touching Hygieine or the Art of Preserving Health: The *Second Part of Physick followes, termed* Therapeutice, *which teaches the way to know all Infirmities which impair the Health of* Mans *body, and being known, by certain convenient Remedies to remove the same, if possible.*

Its *End* therefore is to remove (if possible) the preternatural Dispositions of the body, and to restore health lost.

Its *Parts* are likewise two: 1. *General*, which treats of the Nature, Signs, Causes, Differences and Cure of the præternatural Affections of the Body, both in General, in particular, & in Conjunction. 2. *Special*, which treates of such preternatural affections as refer to the particular parts of the Body. The former is again subdivided into four parts. In the *First* we shal treat of the Nature and signs of præternatural affections. The *Second* declares the Medicaments. The *Third* laies open the general method of curing. The *Fourth* treates of the first differences of Diseases, and delivers their Cure, considered in gross.

Title, I. *Of a Disease in general.*

Chap. 1. *Of the* Nature *of a Disease.*

THose *Affections or disorders which præternaturally infest the* Body *of Man, are three: A Disease, its Cause, and its Symptome.*

A Disease is the Inability *of the living*

parts of Mans *body to perform their natural Actions, ariseing from their præternatural Constitution.*

Concerning which we are to consider, 1. The *Subject*. 2, The *Times*. 3 The *cause*. 4, The *Differences*, 5. The *Signs*. 6. The *Issue* or *event*. Of the first four we shal treat in this Chapter, assigneing peculiar Chapters to the two last.

I. The *Subject* is the liveing parts of mans body both spermatick and sanguine: both in reference to their matter, to which Temperament and occult qualities belong; as also to their structure, to which conformation and unity do appertaine. Sometimes altogether, sometimes many, sometimes only one of these is affected.

II. The *times* are four. 1. The *Beginning* in which the disease is crude, nor are there any signs of coction or corruption contrary thereto, present; al things are remiss, unless the matter being agitated does infest some one part more than the rest, til it is either dissipated, or thrust out into the Circumference of the Body, and healthily disposed diseases, their causes being removed, do sometimes vanish. 2. The *Augment or Increase*, wherein the Symptomes grow more burthensome, and the signs either of Coction or contrary Corruption, begin to appeare. 3. The *State*, in which there is the greatest combate betwixt Nature and the Disease; the signs of Life and Death do manifestly shew themselves, and all things are vehement: and if any Remission appeare, the reason is, because nature being weakened gives over, and is no longer able to oppose her against the morbifick Causes. 4. And lastly this *Declination* or *Decrease*, in which the disease being overcome by nature, grows gentle, and no man dies at this time, unless through the fault of himself, or the Physitian, or the disease changing into a worse. Touching all these times note in general, 1. That each of these, being not of equal length in all diseases, is subdivided after the same manner, so that the beginning hath its beginning, Augment and Declination and so the rest, 2. That Intermitting Diseases have their particular times in each fit, 3, That Diseases which receive nourishment in winter, are finnished in Summer, and contrariwise; unless they are terminated within the circuit of certaine daies.

III. When we speak of *Causes* we do not consider any material cause. For a disease hath no such cause, its subject being instead thereof; nor do we intend the formal cause, for that is explained in the definition: nor of the final, because those things have final causes which consist in perfection, whereas a disease consists in defect thereof, also it is bred and receives growth by accident; but we speak of the *Efficient Causes*, which are considered either in respect to the disease, or absolutely, or according as the things themselves are. The former are *sundry*, I. Remote, which either works as procatarctick causes, which 1, Are either in the Body, or without, and therefore have not recourse with externals, 2. They are called external, because they belong not to the Constitution of the body, 3, When manifest causes, as a sword &c. may be the immediate cause of a disease, they are reckoned with the former, 4. They stir up and put in motion such causes as lie hidden in our Bodies, so that they sensibly affect our bodies, as Watchings. 5. Of their own nature and force, they cannot cause a great disease: or they act after the manner of antecedent causes, which continue hidden dispositions in the body, which a disease may follow upon, which nevertheless are not conjoined therewith, only are defined by power of acting, and are only found in diseases joined with matter: finally, because the internal, as related to the disease, may be both antecedent and conjunct causes, they have not recourse with them. II. Next, which adhere to the diseases themselves in the body of man, so that suppose the causes, you must supose the diseases, take away the causes, you remove the diseases. Hence they are termed continent and conjunct causes, III. *Per se*, of or by themselves, by whose power the disease doth exist; and by accident which cause the same by the Interposition of some other thing. IIII. Privative, which act by absence; and Positive, which work by their presence. V. Comon and Proper. VI. Finally, external and internal, of which we shal treat hereafter.

IIII. The *differences of diseases* are either *Essential* and primary, of which and their cure we shal treat in the fift book; or *Acidental*, which are taken from the *Number, Magnitude, Duration, Manner, Event, Order, Subject, Causes, Seasons of the yeare, and Place*. For I. In *respect* of *Number*, a disease is either 1. One, which possesses but one part, or many parts but without any Interruption: which is either simple, which is joyned with no other disease, and hath the simple nature of one only sort; or *compounded*, which consists of many diseases concurring in the same part, whether they be of the same kind or not; and in

case

Caſe it be joined with the Cauſe, or ſome grievous ſymptom, tis termed *Comitatus*; as that *Solitary*, which has neither the cauſe, nor any grievous ſymptom joined with it. 2. *Many*, one of which is not in the ſame part which is poſſeſt by another, and theſe either hurt a common action, and are called *Complicati*, or *Impliciti* : or one contributes ſomewhat to the generation of another, and they are termed *Connexi*. 3. By *Sympathy*, which falls out, when either a part receives ſome humor or vapor from another place, or when it is forced to receive a matter of which it ought to be free; or when the ſpirit, a neceſſary Inſtrument to the ſouls actions, is hindred of its influxe, or when matter neceſſary to the action is denied: & this happens, either by reaſon of the ſympathy of the parts, which is either of the kind, or of continuity by the nerves and membranes, of which *Senertus* treats elegantly in the 39. page of his *Paralipomena*; or of one work, or of neighbourhood, or by reaſon of their ſtrength and weakneſs: hence comes either a Diadoſis of the Humor paſſing from a noble to an ignoble part, or a Metaſtaſis from an ignoble to a noble. 4. *Disjoned*, which being fixed in disjoined parts, do neither hurt the ſame action nor confer any thing to the mutual generation one of another. II. In reſpect of *Magnitude*, Diſeaſes are, 1. Small, which hurt the Action leſs than thoſe ſort of diſeaſes are commonly wont to do, or ſtick in the more *Ignoble parts* 2. *Great*, which either hurt a Conſtitution and part very neceſſary to life, or Goe very far from the natural ſtate, or have ſome bad quality annexed, or they deject ſome faculty, by hurt of which the life is endangered, or they take up a large place. III. In reſpect of *Duration*, diſeaſes, are 1. *Long*, which move ſlowly. 2. *Short*, which moves quick, 3. Continentes, which are alwaies moved with one and the ſame motion, til they are quite ended. 4. *Continui*, which continually afflict, but are heightned and abated at certaine intervals of time. 5. *Intermittentes*, which have periods and Fits, and therein their ſeveral Modes and figures. 6. *Acute*, which are terminated on the fourteenth day; *peracuti*, on the ſeventh day; *Perperacuti*, on the fourth day; *Acuti ex decidentia*, which are terminated on the fortyeth day. 7. *Critical*, which are finiſhed by ſome great mutation, by evacuation or tranſlation. 8. Not critical, which are ended by diminiſhing peece meale. IIII. In reſpect of the *Manners* or *Conditions*, they are; 1. *Benigni*, gentle, wel affected, having no greivous ſymptom beſides nature. 2. *Maligni*, malignant, which have ſomewhat of an occult pravity. 3. *Peſtilential*, which come by Infection. V. In *reſpect of the event*, they are. 1. Healthy, which end in health. 2. *Doubtful*, of which many are ſaved, and many die, 3. *Deadly*, which kil alwaies, or for the moſt part, either becauſe they deſtroy that action by which life conſiſts, or proceed from matter which wil not admit Coction, or becauſe their Focus is ſo far of, that medicaments cannot reach ſo far without looſening their ſtrength. VI. *In reſpect of their order*, they are, 1. *Ordinate*, which keep their Mode, or Figure. 2. *Erratick*, which neglect the ſame. 3. *Relapſative*, which when they are thought to be quite finiſhed, returne againe. VII. *In reſpect of their ſubject*, they are, 1. *Univerſal*, which afflict the whole Body. 2 *Particular*; which moleſt one or more parts, 3. *Cognati*, which are ſuitable to the temperament, conſtitution of Body, Age, Seaſon of yeare &c. 4. *Minus cogniti*, leſs of kin, which are contrary thereunto, they are of *Men*, *Women*, *Infants*, *Boyes*, *Young Men*, *Old men*. VIII. *In reſpect of the Cauſes*, they are 1. *Exquiſite* or legitimate, which ſpring from one ſimple Cauſe. 2. *Spurious* or *baſtard*, which proceed from mixt humors. 3. *Hæreditory*, which ſpring from fault of the ſeed or mothers blood. 4, *Conjenit*, which happen from the firſt original, through fault of right ſhaping, though the Parents had not the ſame diſeaſe. 5, *Adventitious*, which come by ſome accident. 6, *Fientes*, which though produced, cannot exiſt without the matter continue. 7, *Fatti*, which abide, the cauſes being removed. IX. *In reſpect of the time of the yeare*, they are *Spring ſickneſs*, *Summer ſickneß*, *Autumn ſickneß*, and Winter ſickneſs. X. In *reſpect of place*, they are, 1. *Sporadick*, which being of different ſorts do aſſault ſundry perſons at the ſame time, and in the ſame place. 2. *Common, or Pandemial*, which either are never but in one Country only, or which ſomtimes in one, ſomtimes in many places, afflicts many together. 3. *Epidemii*, *Epidemick*, or *vulgar*, which at ſome certain time, now in ſome one Country, other whiles in many, do infeſt many folks at the ſame time, and they are for the moſt part peſtilential.

Chap. 2. *Of the Diagnostick Signs of a Disease.*

THe Diagnostick Signs of a Disease, do respect, 1. The Disease in it self. 2. Its times. 3. The Parts affected. 4. The Differences of the Disease. 5. And lastly, all these together: And they are either common to many and divers persons; or proper to one Disease; which are either inseparable, or proper and inseparable together, or Pathognomonick, and Essential to the Disease, and recurrent therewith; or Assident, and supervenient.

I. *A Disease in it self is known,* 1. *From things Essentially inherent*; in External Diseases most easily without help of any other signs; in internals, by the mediation of other Signs. 2. From the *Causes*, which are either present, or have preceded. 3. From the Bodies Disposition, which depends upon Hereditarines, Age, Sex, Kind of Life, Dyet, and Evacuations omitted. 4. *From Actions Natural, Vital, Animal*, which are hurt, abolished, diminished, depraved; and that suddenly or slowly. 5. From things *voided forth*, viz. Urine, Dung, Swear, Spittle, &c. 6. *From the Qualities of the Body changed*, color, smel, &c. which yet, do signifie rather the Cause, than the Disease.

II. *The Times of the Disease*, (whose knowledg is necessary, were it but in respect of the state, when, if ever, the signs of perfect Coction appear, and good Crises do happen) are known, 1. By *the Idea of the Disease*, be it long or short. 2. From the *time of Year, Dyet, Countrey, Temperament, Strength, &c.* Hot things are the Causes of hot and acute Diseases. Patients strength in a disease not deadly, signifies a short disease, and that the state is at hand; in a deadly disease, it shews 'twill last long. 3. From the *Mutations of the fits*, in which their Anticipation, coming later, duration, and vehemence, are to be observed: of which also see Authors. 4. From the *Symptomes of Diseases*, which are light at the beginning, strong and fiercest in the state. 5. By *Coction* and *Crudity*, which is either proper to one kind of diseases, as spittle in the Pleurisie; or common to many.

III. The *Parts affected* are known, 1. From the Causis, Things taken in, done, Retained, Excluded, and incident from without: Some are more apt to one part than another; also at some season, the Lungs are chiefly infested, other whiles the Stomach, &c. 2 From things Essentially inherent, or by propriety of the Part, and the diseases inherent in the parts. 3. From the Actions hurt, unless they be hurt by some external accident, especially by pain; of which we shal treat hereafter in a peculiar Chapter. 4. From things voided forth, in which substance, quantity, quality, and Mixture, are to be observed. 5. From qualities changed.

IV. The Signs of the first and Essential *Differences of Diseases*, shal be explained in the fift Book; in respect of the accidental, wch we have above propounded, Observe, I. Touching *Diseases by Sympathy*, 1 That they encrease or decrease, with the Primary Disease, and are deserted by the Primary. 2. That they infest not continually by certain fits, unless matter be continually supplied. 3. By things helping or hurting applied to the other, they are helpt or hurt. II. *Touching acute Diseases*, that they from the very beginning, and the first three daies, are extreamly burdensom to the sick, and have grievous symptomes, because they proceed from hot, sharp, thin, and movable Humors, which vehemently provoke Nature. III. *Concerning malignant diseases*, 1. That they arise from Causes both external and internal, which are offensive by their whol substance. 2. That in them, the Patient is frequently unquiet, though he cannot tel of any vehement or dangerous symptom; that in the beginning the Patient is often held with a deep sleep, is not eased by sweats, or other Evacuations, shivers, grows hot, bleeds at Nose, without any appearing Cause; but in other respects they seem troubled with a slow Feaver, with signs as it were of Recovery, and upon a light occasion faint away. They talk continually, and their Tongue is black and rough. 3. That the same diseases, after a light Remission, the malignity having spred it self through the Humors, are most suddenly, and vehemently exasperated. 4. That in them, the paines which were, do remit and abate, without either Excretion or Riseing; the pulse in respect of the feverish Heate, haveing an unwonted parvity with Inequality and Frequency.

V. All those promiscuously regarding signs are afforded by the differences of Urines and Pulses.

I. The differences of *Urines*, are taken from their *Consistence, Quantity, Quality, things mixed with and contained therein.* 1.

As

As for *what concerns the Conſiſtence*, Thin urine argues too much drinking, a ſtrong obſtruction of the Kidnies and Ureters, and want of natural heat proceeding only from diſtemper. Defect of that ſalt, which is wont to be reſolved out of the meat. Thick, argues oppreſſion of the heat by abundance of Humors *indifferent*, ſhewes vigorous Heat, an exquiſite digeſtion, of the ſtomach, Liver, and veins. *Cleare and tranſparent*, perfect concoction, goodneſs of Humors, whence afterwards it makes a ſediment. *Troubled*, proceeding from the cold of the aire, and admitting amendment by the fires Heat, in continual Fevers, argues a rudiment of Coction. *Troubled* which is made ſo, ſhewes diſeaſes of the Kidneyes or bladder, plenty of crude, thick and clammy humors, out of which many thick flatulencies being produced, they are mixed with the Urine, and hinder the matter from deſcending, ſudden obſtruction of the Liver, Spleen, Reines, &c. Solution, if it happen ſuddenly. *Confuſed*, which is in all parts alike, and hath no Hypoſtaſis, ſhewes diſeaſes in the veins, and properly confuſion, corruption & putrefaction of the Blood and Humors, which are in the greater veines; and therefore 'tis only obſerved in fevers, and thoſe continual and malignant. *Fatty* defilement of the alimentary Humor, which flowes into the parts, ſo that it cannot be converted into their ſubſtance, whereupon diſſolution followes. II. *As for the Quantity, much*, ſignifies immoderate drink, diuretick Medicaments, cold diſtemper, and *cold* preſſing and ſqueezing forth, moiſt diet. Heat of the Kidneyes attracting water ſhut up in ſome place, reſolving of the Body into liquor, either of its own accord, or by force of Heat, to which fatneſs is joyned. *Little*, ſhewes little or hard drink, overgreat ſweates, plentyful ſtooles, obſtruction of the Kidnyes, Ureters, Bladders, Neck, and Bladder, vehemency of feveriſh heat, the drinks turning to the bodies nutriment, which ſometimes happens to ſuch as are in away of recovery from ſome diſeaſe. III. *In reſpect of the ſmell, fragrant* Urine intimates the uſe of Terpentine, Musk, Benzoin &c. For from internal cauſes ſuch Urines can hardly proceed; *Stinking Urine* argues eateing of rotten cheeſe, garlick, an Ulcer of the Kidnies, Privities, neck of the bladder, putrefaction of humors if it be freſh, of the Subſtance, if an old ſtench. IIII. *In reſpect of color, white urine if thin and tranſparent*, argues plenty and thinneſs of drink, ſtrong obſtruction of the Meſentery, Liver, or kidnies, great imbecillity of digeſtion, defect of color, and ſometimes the aſcent thereof, to the belly, Head, or ſome part in the Habit of the body; if *thick, obſcure*, or like milk, it argues abundance of thick flegm. *Red*, and withal *tranſparent*, argues Heat of the Liver, or a fever; if *thick and yellowiſh*, it argues the mixture of yellow or vitelline choler, a phlegmon of the Liver, or an exquiſite ſcirrhus. *Safron-color'd*, argues the uſe of Rhubarb, Safron, or Fenel, obſtruction of the Gall-bladder, and then Linnen cloathes dipt therin receive a tincture. *Bloody*, ſhewes the weakneſs and ſlapneſs of the Liver, an ulcer and contuſion of the Kidnies and Loines. *Wine & grape colored*, ſhewes aduſtion of blood, and the change thereof into black choler. *Green*, argues verdigreiſe colored choler. *Lead-colored* argues ſtripes, melancholly, and extinction of the natural Heat. *Black*, if compounded of *green and black*, argues extream Heat, and permiſſion of black choler; if of *Blew* and *lead-color*, extinction of Heat, unleſs it come away in manner of Criſis. V. In *reſpect of things mixed*, the *Crown* which circles about the ſurface thereof, ſhewes what kind of blood is in the greater veſſels, by its whiteneſs, rednes, and Lead-coloredneſs. 2. The *Froth* if it come without ſhaking, argues wind. 3. Bubbles *great and laſting*, argue groſs and clammy humors, as alſo wind. Such *as eaſily break*, thin and *ſmal*, in the crown of the urine, argue paine of the whol Head, if they be all over the Crown, of half the head, if they poſſeſs only half thereof; ſharp paine, if Gold-colored; mild paine, if white; long paine, if they continue long; being like ſmal ſeeds ſeated in the Crown, and moveing to and fro, they argue diſtillations deſcending from the Head, into the lower parts. 4. *Fat*, like Cobwebs, ſhewes the melting of the fat of the Kidneyes or whole Body. 5. *Branny* contents, if they ſettle, argue ſcabyneſs of the Bladder; if they ſwim they argue the waſting of the ſolid ſubſtance of the Body, by reaſon of a burning Heat. 6. *Little ſcales*, with ſtrong ſmel, argue either exulceration of the Bladder, or melting of the tunicles in the veſſels, and of the ſolid parts, by fervent heat. 7. Contents like *meale* ſignifie the ſame. 8. *Caruncles* or little bits of fleſh proceed from wounds of the Kidnies. 9. *Strings* come from the ſeminary veſſels in women that have the whites, or ſome filthy Iſſue of the womb. 10. *Blood*, from a new ulcer of the Kidnies, or of ſome Bowel. 11. *Quittor*

from

from an old and foule Ulcer, either in the Kidnies, if it be without any ſenſe of paine, and wel mixed with the urine; or from the neck of the *Bladder*, if it be with paine, and not wel mixed: but however, it alwaies ſettles to the bottom. 12. *Gravel*, if *yellow* and *red*, comes from the Kidnies; if *white* from the Bladder; if *clammed with quittor*, from a ſordid ulcer of the Bladder; if they *ſwim on the top, and ſtick to the ſides*, from the Livers heat, and Aduſtion of the Blood. 13. *Seed* argues an hurt of the ſpermatick veſſels, and ſwims on the top. VI. In *reſpect of the Contents*, which in ſound perſons ought to be white, ſmoothe, equal, and pyramidal, 1. *Little* comes from weakneſs of the Alterative faculty, diſtemper, multitude or Craſſitude of humors, and diſſipation of the Bodies ſubſtance by external Cauſes. 2. *Much*, from ſuppreſſion of ſome cuſtomary Evacuation, if it be at the ſame time both thick and undigeſted; from ſtrength of the aliments and faculty, if it be indifferent in ſubſtance and color. 3. *Thick*; from plenty of crude matter, or the Criſis of ſome old diſeaſes. 4. *Thin*, from Crudity or digeſtion but newly begun. 5. *Straw-colored, Gold-colored, red*, from redundancy of choler in the veins, and from inflammation of the blood. 6. *Blewiſh, Lead-colored, black*, from extinction of natural heat, corruption of blood and melancholy.

II. There are many differences of Pulſes that ſavor of vaine curioſity and idle ſubtilty: diſcreet Phyſitians are content to obſerve only theſe three following. *Equal, and unequal*; *Swift and Slow*, ſtrong and weak. The *Equal*, pulſe argues ſtrength of Nature. The *unequal*, ſignifies either obſtructions and compreſſions of the veſſels, or abundance of Humors: The *Swift*, uſe increaſed, ſtrength of the Faculty as yet; or at leaſt that it is not much weakned. *Slow*, argues the contrary. The *Strong* ſhewes a ſtrong faculty, and ſometimes great Provocation. The *weak*, either diſſipation of ſpirits, or expreſſion of ſtrength.

Chap. 3. *Of the Diſeaſes Event, Or Iſſue.*

THe Iſſue of a diſeaſe intimates four things. 1. The Termination hereof. 2. The Time of the Termination. 3. The manner of the Termination. 4. The Knowledg of al theſe.

I. A Diſeaſe is *terminated* either by Health or Death. Whence the Event is healthful or deadly.

II. In reſpect of *Time* 'tis ended ſoon or late.

III. *The manner of termination* is threefold. For a diſeaſe is terminated, either *by ſolution*, when health returns by little, & leave by means of Coction and alteration: or by *Maraſmus* or pineing, when it turns by little and little to death; *or by* Criſis, when either the diſeaſe is ſuddenly and perfectly finiſhed; or there is a ſudden change to the better, which is followed with health; or the ſick patient ſuddenly dies, or the diſeaſe is ſuddenly changed to the worſe, which mutation is followed by death. But *touching the nature of the Criſis*, or the Definition, Cauſes, Differences, Manners and Daies, obſerve. I. That *it is* nothing elſe but a ſudden mutation, which happens in diſeaſes, with conturbation and evacuation, by excretion or tranſlation, upon certain daies, tending to Recovery, or Death. II. That *it ariſes* in reſpect of the *Conturbation*, or that plenty of critical ſymptomes, from the agitation of Humors, and the trouble they bring to the Body, which proceeds from the influence of ſtars; and from an internal cauſe, which provokes both nature and the matter: in reſpect of the *evacuation*, from the ſtrength of the expulſive faculty, which provoked by the plenty or quality of the matter, expels that which is of ſeizure critically, by help of the fibres and eſpecially of the ſpirits and innate Heat. III. That it has ſundry *Differences*. For it is *good* when tending to health; *evil* when to death. *Faithful*, when no danger of a relapſe. *Faithleſs*, when it threatens the ſame. *Safe* when without dangerous ſymptomes. *Dangerous* which ſprings from a principal part. *Perfect* which takes away the whole diſeaſe. *Imperfect* which leaves ſome of it behind. *Wel-foretold* which has tokens preceding and declareing the ſame ſome daies next before. Unforetold, which comes unlooked for. IV. That *it happens by Excretion*, by bleeding at Noſe, Vomit, ſweat, ſtool, Urine, Hemorrhoides, Courſes, many places: or by *Tranſlation of the matter*; or by *coction of the matter*, which happens in children who digeſt crude humors while they ſleep. V. That it has *certain daies*, which are. 1. Either ſimply critical as every ſeventh day, viz. 7. 14. 20. 27. 34. 40. For whole daies are not reckoned

reckoned but ſomwhat ſhorter. 2. Or *Indicators*, by which the future Criſis is foreſhewed, and they are the middle daies of each week, as the 4.11.17.24. 3. Or *Intercalares*, or Leap-daies, in which the Criſis happens accidentally, and againſt Nature, and they are the 3.5.9.13.19. 4. Or *Vacui*, called *Medicinales*, in which either there is no Criſis, or an imperfect and bad one; as are the ſixt, which is a Tyrant, the eigth and tenth leſs dangerous than it. Now that ſuch mutations happen on theſe daies, the Cauſe is, 1. The progreſs of the Moon, both to Quadrate and oppoſite ſigns, as alſo to the ſextile and Triangular ones. 2. The Motion and diſpoſition of the humors, which is the Cauſe, that the Criſis happens, ſomtimes ſlower, ſometimes earlier. 3. The Nature of the Body, which being aſſiſted by the Moons motions, and provoked by the Humors agitated by the Moon, begins to aſſaile the morbifick matter, expels the ſame, and ſo works the Criſis.

IIII. The *knowledg of the event* of a diſeaſe reſpects four things. 1. *The Event it ſelf in general.* 2. *The Termination.* 3. *The time of Termination, or the duration.* 4. The Manner. The ſigns which ſhew the ſame are termed *Prognoſticks*, and among them the chief are thoſe that declare Crudity or Coction. 1. *The knowledg of the event of a diſeaſe in general*, depends upon a compariſion of the ſtrength of Nature with the ſtrength of the diſeaſe, to which the foreſeeing the ſtate of the diſeaſe, confers much. The *ſtrength of Nature* is judged, both by its natural Cauſes, as wel *immediate*, viz. the natural Conſtitution of the parts, in Temper, Conformation, and unity: as *mediate*, or remote, viz. the ſix non-natural things ſo called: as alſo by its effects, viz. the Actions, evacuations, and qualities changed. The ſtrength of the diſeaſe is gathered, from things eſſentially inherent, cauſes external and internal, helpers, and effects, or conſequences thereof. Here note. 1. Oft-times from many ſmal ones, the greateſt ſigne drawen. 2. Many times one ſtrong ſigne is prevailes more in ſignification than many weak ones. 3. Becauſe ſome ſignes are better or worſe, as they are joined with ſtrength or weakneſs of nature, therefore the ſigns muſt be compared, both one with another, and with the ſtrength of the ſick patient. 4. Thoſe are the worthyeſt ſigns which declare the ſtrength or weakneſs of the vital faculty. 5. Oft times when ſome ſigns of Coction appear, the patient may nevertheleſs periſh, by reaſon of ſome malignity which betrayes it ſelf, in a weak pulſe, a parched tongue &c. 6. By how much the ſymptomes are leſs and fewer, the diſeaſe is ſo much the weaker; and contrarily. 7. That they are leſs dangerouſly ſick, whoſe diſeaſe is ſutable to their Nature, Age, or cuſtom, or ſeaſon of the yeare; than they whoſe diſeaſe is like none of theſe. 8. That there is greater danger, when turgent humors offend, than when ſuch as are quiet, provided they be not fixed in ſome part: when the diſeaſe comes from ſome large and frequent Error in point of Diet or the other things non-natural ſo called: when the Humors are mixt, than when they are ſimple. When a ſolid matter offends, than when a liquid &c.

II. *The Termination of the Diſeaſe*; and whether it wil tend to Health or Death, is gathered from the actions natural, vital, and Animal; From things voided, and qualities changed; not that thoſe things do preſently declare Life or Death, but becauſe they promiſe hope of Recovery, or terrifie by ſuggeſting a fear of Death. And therefore, I. *In reſpect of the natural Actions.* 1. It gives good Hope. 1. If the patient do eaſily take and retaine what is given becauſe it ſignifies the good condition of the natural faculty. 2. If the Patient eat ſuch things as he or ſhe was delighted with in time of health. II. Thoſe following breed an ill event. 1, If the patient deſire meat when his ſtrength is waſted, for that is the cuſtom of thoſe that are at deaths dore, and happens either by reaſon of a ſoure juice ſlipt into the ſtomach; or by reaſon of the great waſting of the body, by the diſeaſe. 2. If the patient have a moſt exact ſence, becauſe that proceeds from a great Inflamation in the bowels. 3. If he loath meate in accute diſeaſes, and other pernicious ſignes are preſent. 4. If in burning Fevers, his tongue being dry, he thirſt not; becauſe it ſignifies either Raveing, or great decay in the Appetitive faculty, unleſs the ſtomach be moiſtened with an humor falling from the Head. 5. If in an acute diſeaſe, the thirſt which was, is ſuddenly taken away and gone, without any cauſe, the tongue remaining dry and the urines crude, becauſe 'tis a ſigne the patients ſenſes languiſh.

II. *In reſpect of the vital Actions.* I. It is a good ſigne. 1. If the pulſe depart not much from its natural ſymmetrie or due proportion, tho there be other good ſigns. 2. If when there is ſome change to the worſe, it happen from ſome diſcernable cauſe. 3. If there be no fainting felt, nor panting of the Heart;

or

or in case there be, they proceed from consent. 4. If respiration be according to nature, and other good signs are present; because from hence we gather that neither the chest, nor the Lungs, nor the midriff are affected. 5. If the same be great or swift; for though it should signifie great abundance of fuliginous excrements; yet it argues withal the readiness of the organs, and the faculties strength. II. 'Tis a bad sign. 1. When the pulse is either very languishing, very slow, and very seldom, which is worst of al; or very little and very soft, and very hard; or exceeding frequent, but not very swift, nor very great. 2. When Respiration is great and swift, because it is usual only to such as are distracted: great and frequent, because it signifies Inflamation or Pain of some of the Instruments of Respiration; great very seldom, because 'tis a sign of distraction. 3. *Respiration smal and swift*, because it proceeds from plenty of fuliginous vapours, with pain or inflamation of some of the instruments of Respiration; *smal and slow* because it shews a weak faculty. *Smal and obscure*, so that the Patient is hardly discerned to breath, because it intimats the Virtue decayed; *little, obscure, and frequent*, because it proceeds from pain or inflamation of some part necessary to respiration; *Smal* and *seldom*, because it signifies extream debility, and therefore the breath of the Patients does then come forth cold. 4. *Sublime Respiration*, in which the Chest is exceedingly dilated, and that which is inspired is little, but withal in regard of the urgent Necessity, most dense and frequent because *Hippocrates* makes such nigh unto death. 5. *Respiration with Rattling*, especially if it be joyned with other pernicious Signs, because such is that of dying persons.

III. *In respect of Animal Actions.* I. These are good signs. 1. *Not to be distracted*, which though it be no certain sign of recovery, seeing many die in their right wits; yet in diseases, wherein the Brain is affected, either by it self, or by accident, it is no bad sign. 2. For the Patient to lie in his bed as himself has formerly been accustomed, and as sound persons are wont to do, that is to say in such a posture and gesture, viz. if he lie on one side, with his Neck, Arms, & Legs bending somwhat inwards, with his body streight up, not falling down towards the Feet. 3. For a Trembling to follow a Palsie, because 'tis a token of nature overcoming or abating the disease. II. *Bad signs* are. 1. *Raving*, which though never safe, yet it is then less dangerous, when 'tis accompnnied with laughter and good signs, is light and not continual; when continual and vehement, 'tis more dangerous; bold and rash, is worst of al: but withal other signs must be observed, viz. Pulse, Respiration &c. 2. *sleep* and *watching*, if they exceed measure. 3. Coma, if it happen in the beginning or vigour of a disease. 4. *Hearing Hurt*, if it spring from evil evacuations, or decay of strength. 5. *Stupiditie*, because 'tis a sign either of a vitious humor carried to the Brain, or of natural Heat extinguished. 6. *Pains* which are *bad*, if at first, the matter being as yet crude, they afflict the principal parts; if the disease be not diminished by them; if they soon vanish away, or pass from the ignoble to the nobler pars; if in some part they are not felt, for then the Patient is distracted. The same holds good of weariness which has been said of Pains. 7. *Convulsion*, which is *dangerous*, if therein the Contraction be more vehement and lasting, if it occupy many parts, and those neer the brain, if it arise from any flux of blood, or over vehement purgation; if in acute Feavers it follow the Phrenzie, Iliac passion, or watchings: *less dangerous*, if it happen to Children, if by reason of the over-great motion of the matter to the Head or Nervous parts, if from the stomachs being fretted by a sharp humor, or medicament, or from straining in vomiting, and last not long. 8. *Hiccupping*, which is dangerous if it happen in diseases after much evacuation, if inflamations and Feavers, especially in old Men, and most of al, if other pernicious signs are present. 9. *Trembling*, which is *bad* if it happen without evident Cause in the beginning of diseases, especially long ones, & is joynd with other more grievous symptomes. 10. *Shivering* & *shaking* if they arise at the beginning of a disease, when the matter is but yet crude. 11. *Sluggish dulness*, which is alwaies bad, and without a Feaver foretels an appoplexie; in Feavers it portends extream danger, by reason of the extinction of natural heat. 12. The *Voice*, which if much changed, harsh, unequal, obscure, is dangerous; if quite taken away, 'tis a deadly token, unless some critical evacuation follow.

IV. In respect of things voided and retained. I. These following are good signs. 1. *Urines*, thin with good color; thick, if they were first thin, and are made after the beginning of the disease, reddish, pale saffron-color'd, yellow

yellow-clayiſh, with a reddiſh ſediment. 2. *Vomitings*, which anſwer the nature of the diſeaſe, becauſe they either take away or leſſen the diſeaſe. 3. *Sweatings*, if they happen after Coction is made, if they are hot and plentiful, if they flow out of the whol body and diminiſh the diſeaſe. II. Theſe are bad ſigns, 1. *Urines thin and red*, becauſe they ſignifie a crude diſeaſe: *troubled* and *not ſetling*, becauſe in a weak perſon they ſignifie death, in a ſtronger, the length of the diſeaſe. *White*, if they continde. *Black*, if in acute diſeaſes. *Oily*, *green*, the reaſon of which have been already rendred. *Wanting ſediment*, *Swim*, *and Cloud*; unleſs the ſick have faſted much, or watched, or is of cholerick Complexion. *Thick without ſediment* with a mealy, branny, ſealy ſediment &c. 2. *The ſtools drie*, becauſe proceeding from a fiery heat, and if withal *black*, they argue a burnning diſpoſition about the middle of the body. *Watry*, becauſe they ariſe from great Crudity, and are in cholerick diſeaſes, with bad urines deadly; in milder caſes they foreſhew a long diſeaſe. *Smal and frequent*, becauſe they argue the weakneſs of the retentive faculty. *Fatty* becauſe they ſhew the bodies being melted. *Froathy*, becauſe they argue a defluxion from the Head, & worms in the Guts. *White*, becauſe they argue either a ſtoppage of the way by which choler deſcends to the Guts, or the motion thereof, to the upper parts. *Red*, are of themſelves deadly, unleſs they follow natures conqueſt. *Black*, if from black choler, becauſe they are deadly, unleſs tempered by the mixture of others; if they come from clotted blood or melancholy, they are not alwaies bad. *Green and Verdigreaſe-color'd*, whether they proceed from Verdigreaſe-color'd choler changing to black, or from an Eryſipelas in ſome principal part, or bowel. *Lead-color'd*, becauſe they argue a vehement coldneſs of the lower parts. Finally, *ſuch as* are ſtinking, becauſe they argue putrefaction, and foretel putrid feavers. 3. *Vomittings*, if they happen at the beginning of a diſeaſe before the matter be digeſted, & are joyned with other bad ſigns; whether they be ſincere, pale, lead-color'd, black, or ſtinking, by reaſon of the Iliac paſſion, or ſmal, &c. 4. *Sweats*, if they happen too plentiful, or ſparing, or cold; and proceed not from the whol body. See the Aphoriſmes of *Hippocrates*.

V. *In reſpect of Qualities changed.* I. Theſe *are hopeful ſigns.* 1. If the whol *Habit* of the body be not much unlike that of healthy perſons. 2. The *Hypochondria*, when they are without pain, and ſoft, on both ſides equal, and not extenuated. II. Theſe ſigns following are bad. 1, when the *whol Habit* of the *Body* is not at al changed by the diſeaſe, for that argues that it wil prove long; if extenuated, it is not nouriſhed by meat in the declination of the diſeaſe, for that threatens a Relapſe; if in acute diſeaſes it ſwel, becauſe it argues the Livers heat to be weakened, unleſs the humors be critically thruſt into ſome part. 2. The *Face* when it is ſuch as *Hyppocrates* deſcribes, viz. with a ſharp Noſe, hollow Eyes, ſtrained Temples, cold Ears, contracted, their fibres inverted, the skin about the forehead ſtretched and drie, and the color of the whol viſage green or black, eſpecially at the beginning of the diſeaſe, unleſs it were ſuch from ſome evident cauſe, and amend in a day and night. *Colored high*, becauſe it argues a very hot diſtemper in the Brain, unleſs it be a ſign of bleeding at the Noſe, or a token of a riſing that wil appear behind the Ears. *Green*, *Lead-color'd*, *Black*, becauſe it ſignifies extinction of the natural Heat, eſpecially if it ſooh appear, without any evident Cauſe. 3. The *Eyes*, when *they ſhun the light*, becauſe they ſignifie the brain hurt through diſſipation of ſpirits, and weakneſs of the Head. *Swelling and ſticking out*, becauſe they argue either reſolution of the muſcles, or abundance of humors, vapors, ſpirits flowing thither. *Hollow*, becauſe want of Heat makes them ſo, which is wont to fil the circuit of the Eye with ſubſtance. *Fierce and horrid*, becauſe proper to diſtracted and frantick perſons, and are ſigns for the moſt part of Convulſions, or alſo of death joyned with other ſigns. *Fixed* and *ſtable*, or *ſet in the Head*, becauſe they proceed from Convulſion, and with bad ſigns threaten death. *Diſtorted*, becauſe they betoken Convulſion. *One leſs than another*, becauſe it argues the faculty governing the ſame to be extinguiſhed. Having *Lead-colored* and *Black* veins, becauſe they argue plenty of bad humors aſcending to the Brain, and that the native heat is extinguiſhed. *With the White turn'd Red*, becauſe they ſignifie plenty of fervent blood in the membranes, or their being inflamed. *Shedding unvoluntary tears*, becauſe they argue undoubted weakneſs of the retentive faculty. *Which do not ſhut cloſe*, becauſe it happens either through Convulſion of the eyes Muſcles, or becauſe the faculty is ſo weak, that it can-

not perfectly mannage the Eye lids. 3. The *Teeth*, if they grind, not being accustomed so to do, because they signifie Madnes, or death, if they are clammed with a glutinous Humor. 4. The *Nose*, if distorted, for it argues convulsion. *Sharp*, because it argues great weakness of nature. *Itching unacustomarily*, unless it foretel bleeding to follow, because it portends the patient wil rue, by reason of store of humors and vapors ascending to the Head. 4. *Eares lead coloured, black, contracted, cold*, because they are tokens of the native heate extinguished. 5. The *Tongue dry, hard, black*, if it appeare so with other signs, and the patient thirst not, because it argues, either distraction, or extinction of the Faculty, and consequently death. 6. The *Hypochondria inflamed* or *pained*, stretched, unequal, extenuated, because they signifie, either exceeding dryness, or wind, or Inflamation of some part there seated. *Pulsing*, which signifie either the head inflamed, or much wind riseing, from a boiling humor into the head; foreshow perturbation, and with unstable Eyes, Distraction; unless this pulsing presage the Crisis. 7 *Nailes* lead-coloured and black, if the Body be withal heavy for tis a deadly signe. But if the Patient be lightsom, and there be some other good signe, the disease tends to an Impostume or Riseing.

III. *The knowledg of the Manner how a disease wil terminate*, respects what ever we have already said, touching the crisis, and involves many questions. For the queries wil be, 1. Whether the disease shal end in a Marasmus or utter consumption. 2. Or by solution? 3. Or by crisis? and if so. 4. Whether the Crisis wil be by excretion? and if so, by what and what manner of excretion? 5. Or by Translation? 6. Whether the Crisis be very good? indifferent? or bad? 7. When the Crisis shal happen?

I. *Touching the knowledg of a Diseases Termination by Marasmus or solution*, I need not say much. For if the disease out last the critical daies, and those of acute diseases per *decidentiam*, it wil terminate either by solution or Marasmus.

II. By Crisis a disease wil terminate, 1. If it be great and accute, or seem smal, malignity lurking therein. 2. If it arise from matter hot, thin and sharp, which is apt to provoke nature; howbeit in a long disease some critical evacuation may likewise happen, if the disease for some fits preceding have been more vehement than ordinary. 3. If the strength of Nature be so vigorous as to overcome the disease. 4. If perturbations happen in the body, in reference to the animal, vital and natural actions.

III. A disease wil terminate by excretion. 1. If it be acute, from a thin and sharp matter, and the Crisis be expected at the beginning. 2. If Nature be strong, the pulse high, the waies open, and nature accustomed to sweat or other evacuation. 3. If it be summer. II. If it ought to terminate by bleeding at the Nose. 1. The Hypochondria are distended without paine, which is followed by shortness of breath not long-lasting, 2. There wil soone follow paine of the Head and Neck, redness of the face and eyes, shineing and darkness before the eyes, apparitions are seen, There is raveing, pulseing of the Arteries in the temples, also the pulse in the wrists is vehement. 3. Lastly, when the Nose-bleeding is at hand, the patient begins to rub and scratch his nose: all which signs are more certaine, if the Age and Nature of the patient, and the present constitution of the aire be suitable. III. *If by vomiting*, the humors wil move towards the stomach, whence wil follow, paines therein, with headach, dizzines and darkness of the sight, the upper lip wil be ful of motion, they spit much and thin, there wil be stomach sickness, shakings, coldness of the Hypochondria, hardness of the pulse, & an unequal difficulty in breathing. IV. *If by sweat* which is most usual, there goes before, suppression of urine, shaking, and the absence of the signs of other evacuations, when the sweat breakes forth, the pulse wil be soft & waveing, the skin soft, the external parts wil wax hot, and an hot vapor wil break forth. V. *If by stool*, there wil be no proper signe, but the signs of other excretions wil be absent; there wil be belchings and Inflation of the Belly, paine of the Loins, Heavyness of the knees, sometimes the belly being loose, the urine is suppressed. VI. *If by urine*, the signs of other excretions wil be absent, the patient wil not be very unquiet. About the Bladden there wil be sence of inflation, and heavyness of the Hypochondria. The urines wil begin to be encreased. The Belly wil be bound, with a kind of heat. VII. *If by Hemorrhoides*, then the Patient hath been accustomed to them, the signs of other Excretions wil be absent; there wil be heat or paine about the Back-bone, with tension of the Loines; Crises are seldom made by them. VIII. *If by the Courses*, the signs of other excretions wil be absent

absent, the time of their flux, wil be neare. There wil be heat of the Loines, with paine and stretching of the Hypochondrias, and other signs foregoing the flux of Courses. IX. *If by many places*, We shal observe the signs of many excretions. X. *The excretion wil be good*, 1. If the peccant humor be voided, and that digsted. 2. *If* in just quantity and on a critical day. 3. If in a right manner, altogether, and by fitting places.

IV. A disease wil *be terminated by Translation or a Rising.* 1. *If* it be acute, and the matter thick. 2. *If* the virtue be weak, and the urines have been long time thin and crude. 3. *If* Nature have a propensity to those places, the season of the yeare be cold, the patient ancient, and the signs of a Crisis by excretion be wanting. II. The Riseing *happens in the superior parts*, if the matter be thin, in *the inferior*, if it be not so thin, and nature strong. *III.* It *wil be good* 1. If the matter be digested. 2. If it have a laudable substance and rise high-pointed. 3. *If* it ripen equally. 4. *If* it quickly suppurate, and be in an outward and ignoble part.

V. *The Crisis is then best*, when the critical signs forementioned have preceded. *If* signs of coction and crudity went before. If it were foreshowen in an Indicatory day. If it happens upon a judicatory day. If such matter has been voided as is suitable to the nature of the disease. If the patient after the Crisis, be freed from the disease and its symptomes. It is *indifferent*, if exquisite signs of coction have not preceded; if it happen in the augment or a little before the state, or at least when coction begins to be celebrated; in which case, bleeding at Nose, is the most convenient of al excretions, if it be not foreshowen on the Indicatory day, if it happen in the leape-day, if the evacuation suit not with the nature of the disease, if the patient beare it not wel. *It is bad*, if it happen before the state, nature being provoked, by malignity or plenty of matter, if it were foreshewen to be such, in the Indicatory day; howbeit, many times it comes suddenly, if other things are present contrary to the best kind of Crisis. Where observe. 1. Oft times in a bad Crisis, the patient seems to be better, yet presently after he fals into a bad condition, because the signs of amendment, were not wel grounded. 2. Somtimes in deadly sicknesses, the patient being strong, for one bad and simply deadly Crisis, many evil imperfect ones happen, in which unstable rudiments of Coction appeare, before the patient come to die. 3. The Prognostications of the Crisis, in reference to death are unstable.

VI. *The times of the future Crisis are knowen*, 1. *By the signs of Coction and crudity*, which must necessarily appeare, upon some Indicatory or decretory day. The crisis wil happen upon the fourth day, If a signe therof appear on the first day; or on the seventh day, if the signe be on the fourth. 2. By such signs *as the idea, magnitude and manners of the disease afford*: of which we spake before. 3 *By the signs of the times of diseases*, for a perfect Crisis happens not before the state, but the imperfect Crisis does: the deadly crisis happens also in the beginning, or augment. 4. By the critical signs, which you had before.

Title, II. *Of The Causes of Diseases.*

Chap. 1. *Of the internal Causes in general.*

ANother preternatural disorder which afflicts the Body of man, is the cause of a disease; and that is external or Internal. But seeing the latter is an effect of the former, or rather does therewith much conduce to produce the disease, I shal therefore only define the internal.

The internal Cause of a disease is that, which being bred and inherent in the Body of Man, does preternaturally affect the same.

Touching which we are to consider its *signs*, *Causes*, and Differences.

I. The signs of causes are taken in general. 1 From their proper tokens, viz. tast, colour, and motion. 2. From a concourse of common signs, which are taken from the Antecedents and Consequents, or evident causes, and from the dispositions of the Body and Symptomes.

II. The Causes of the internal Cause are the things nonnatural, Aire, Meate, Drink, Motion and Rest, Sleepe and watching, Things voided and retained, and Passions of the mind, as far forth as they have power to disorder the Body. And to that end, time is requisite, as also proportion between the agent and patient, Fitness of the Body and Contact.

III. *As for their differences*, the internal Causes are reduced to the *Humors*, *Winds*, and things *totally besides nature*.

Chap. 2. *Of the Internal Causes of Diseases in special.*

Article, I. *Touching Humors.*

Point, 1. *Concerning Humors offending in Quantity, or a Plethora so called.*

THe first kind of internal Causes are the Humors: and they are wont to offend in *Quantity*, *Quality*, *Motion*, *Place*, and in their *whole substance*: *Humors offending in Quanity are termed Plethora, which is nothing else but a superabundance of Humors fit to nourish the Body, which arise from their Causes.* Humors nourishing the body of man are contained in the mass of blood, viz. *Blood*, *Cholor*, *Flegm*, *and Melancholly*. These being turned into the substance called cambium, do nourish such parts as are of kin to themselves and communicate to them as much health as themselves are Masters of. The *signs* of Plethora are, wearyness; becaus the blood not being ventilated settles into the lower parts. Thick breathing after very smal Labor, the Muscles of the Chest being laden with blood. Swelling of the veins, Distension of the Muscles, carnosity of the Bodies habit, Deep sleeps, ruddyness of the face, &c.

The *Causes* are, good nourishment which affords good juice. The Liver hot and moist which makes it. Idleness, evacuations stopt, cutting off of some member. Use of unwonted bathings after meate.

The *Differences* are, I. One is *Exquisite*, when either al the Humors are encreased, keeping their due proportion and equality, viz, so that the blood be in a double proportion to flegm, and flegm double to cholor; or only blood alone; or two or three of the rest exceed, blood also not keeping its proportion. 'Tis *knowen* by the signs forementioned. It arises also from the causes aforesaid. Another is *bastard* when plenty of bad juices, is joined with abundance of the natural humors. 'Tis *knowen* by the signs of a Plethora, joined with those of a cacochimia, and it arises from the causes of both. II. One is termed *ad vasa*, or in respect of the vessels; which does not oppress the strength, because it increases equally with the flesh & blood; but it distends the coates of the vessels by its plenty, to which the things aforesaid agree. Another *ad visis*, when the Humors so encrease, that they cannot be governed nor digested by the feeble strength of the Patient. 'Tis knowen hereby, that the blood is not very good, there is heavines and Inequality of the pulse, with signs of crudity, and putrefaction beginning.

Point, 2. *Of Humors offending in Quality, or Cacochymia so called.*

CAcochymia is the presence of il humors in the Body of Man, springing from their Causes.

Its *Subject* is the Body of Man, 1 Both in respect of the Veins, Arteries and Nerves; as also of things without, 2. Also in respect of *the Region of the Belly*, which includes the stomach, mesaraick veins, hollow-part of the liver, the spleen, and sweetbread. 3. And of the *Venous region* which containes the convex part of the Liver, with the vena cava, the greater Artery, and al their branches between the Armpits and the Groines. Also the Habit of the body, wch includes the muscles, membranes Bones, in a word, the whol bulk of the body.

The *signs* are to be fetcht from the differences, which follow. Hereunto perrains, the motion of certaine daies, which is neither critick, nor symptomatick, but natural, which is measured by certain daies and hours, and is so punctual, that it may contend with the Clocks.

The *Causes*, the six non natural things, of which we spake before.

'Tis variously *dvided.*

I. One sort is from *Cholor*, which is a preternatural humor hot and drie: preternatural *I* say, becaus it is distinguished, both from the more hot part of the Mass of Blood, which is bred of the hotter and thinner part of chyle; as also from natural excrementitious cholor, which is collected in the Gal-bladder, and colours the dung. 'Tis *knowen* by the amplitude of the veins, by reason of Heat enwidening the same; by depravation of the concoction, through superfluity of heate, desire of drink more then of meat, vehement pulse, sleep little or none, leane habit, yellow colour of the Body, by its motion from third day to third day, and that about noon. It *arises* from an hot and dry constitution of body, youths age, watchings, anger, overgreat exercise of the Body; meates hot and dry, fat and sweet. *'Tis divided.* 1. Into *Vitelline* resembling the yolke of an Egg, which springs from yellow chollor adust, and is thick by reason that the wheyish part is consumed by heat; is sometimes voided by healthy persons, turns to black chollor, if it be burned, 2. Into that which is termed *porracea*, or *Leeke coloured*, which is bred for the most part in the stomach, of herbs apt to corrupt, through crudity, and oftimes in the veines, of vitelline choler. 3. Into *Æruginous* or verdigreise color'd

choler

choler, which by a most intense Heat is bred, in the Liver, Veins and stomach. 4. *Isatidea*, or woad-colored choler, which resembles woad, being bred of the former, more adust.

II. *Another from Flegm*, which is a preternatural Humor cold and moist. I cal it preternatural, to distinguish it, both from the colder part of the mass of blood; as also from that flegm wherewith the stomach, Guts, Lungs, Limbs and Brain are plastered. 'Tis *known* by the softness & whitness of the body, and by crudeness of the stools. By Urine, Crude, White, sometimes thin, and somtimes thick, by appetite of more than can be digested, by its daily motion, and that towards the Evening. It *arises* from meats Crude and cold, unseasonable drinking, and cold distemper of the bowels. From retaining of Excrements, by idleness, long sleep, &c. 'Tis *divided*. 1. Into *Insipid* or *Tastless*, which follows crudity in the stomach, through want of digestion, and makes the body of a leaden color. 2. *Acid*, which is of the same nature with the former. 3. *Salt*, which arises from salt and wheyish moisture, consists of parts both hot and cold; causes thirst, salt tasts in the mouth, and gnawings. 4. *Vitrea*, like glass, in substance and color, it is extream cold and very clammy, and raises most cruel gripeings, when it is detained in the Body.

III. *Another is from Melancholy*, which is a preternatural Humor cold and dry. I say, *preternatural*, to difference it, both from the colder and dryer part of the blood, which is produced in the Spleen out of the coldet and dryer part of Chyle, drawn by the *Ramus Splenicus* of *Vena porta*, before it enters into the Liver, to nouriſh the Spleen and grosser parts: as also from the natural excrementious sort, which because it can by no means be turned into Aliment, it is cast out of the Spleen, partly by the Hemorrhoid veins, partly by the splenick Arteries; sometimes comes as far as the stomach &c. 'Tis *known* by the Leaden color, and blacknes of the Urine, Suppression of the Hemorhoids, flatulency and belching, overgreat appetite, sadness, silentness, troublesome dreams, leanness of the Body, hardness and leaden color thereof, and its motion from four to four about midnight. It *arises* from meats of thick juice, Beef, Coleworts, Fish, upon which a drying, not burning heat does work. From Air cold and dry, consuming the thinner parts, especially if an hot and dry Summer went before, by suppression of the Hemorrhoides, or other melancholick evacuations, &c. 'Tis *divided* into *dilate*, or *thin*, which is known by abundance of Urine, and sweating anights. *Thick*, which is known by the obstructions of melancholick people, & *Black choler*, which arises from heat burning the blood, choler, or melancholy juice. And it is sometimes sharp, somtimes tastless, somtimes so austeer and harsh, as to dissolve the flesh and being poured upon the ground, to make the Earth ferment and work.

IV. Another *from a serous Humor*, which is nothing but a thin and salt watry Humor, affecting the body by its plenty and quality. 'Tis *known*, by plenty of Urine and sweat, somtimes by a wandring pain, because in regard of its thinness 'tis easily carried up and down, and it easily grows hot, by an extraneous Heat. By the sudden going away and coming again of diseases, somtimes by swelling of the Belly, &c. It *arises* from meats moist and watry, also from good meats, and in persons recovering from sickness, by reason of the wasting and languishing of the stomachs Heat. By detention of serositness, by reason of the expulsive [illegible]cies weakness, through obstruction of the other bowels, or constriction of the pores through external cold, fault of the spleen, &c. To this Humor only of al others there is somtimes joyned a *Colliquation* or melting of the bodies substance, which happens either in Famin, through wasting of the natural Heat, and turning the radical moisture and flesh into a vaporous humidity: or in case of bad diet, when the aliment not being suitable nor familiar to the body, is not assimilated into the substance thereof, whence the former Colliquation follows. 'Tis *divided* into that which is *mild*, which is nothing but the thinner part of the blood: and *sharp*, which has attain'd its saltness from adustion.

Point. 3. *Of Humors offending, in their Motion, Place, and whole Substance.*

I. *Humors offending in Motion, are the very same, forasmuch as they flow into the parts, either by means of Attraction or Transmission.* Those parts are either *the weaker*, and ordained for no remarkable action, either by *Nature*, as the loose, soft and thin woven; or through some sickly constitution; or the *more liable*, which have some connexion with the part sending, and waies

wide

wide and large by which they receive the Humors, or lie under the sending part. The Cause of the Motion is. 1. *Attraction*, through heat caused from without, or through pain. For the pained part, grows hot by plenty of spirits sent to it, Nature endeavouring to drive away the Cause of the pain, fils the pain'd part with blood and spirits; finally pain weakens the part, and makes it most fit to receive the Humors. 2. *Transmission*, either from the whol body, or the venous tribe, or from some parts, namely when their expulsive faculty is strong, the waies open, and the matter plentiful. Yet it somtimes notwithstandind happens, that the Humors being accumulated in their vessels, begin of their own accord to be moved, and rush violently into some one part, according to the nature of its scituation and conveniency of Vessels. Now those Humors are most of al moved, which are most thin and sharp, as the cholerik.

II. *Humors offending in place, are the Humors aforesaid, when they are where they ought not to be.* The *Causes* are. 1. *Influx*, either by attraction or Transmission. 2. *Congestion*, which happens either by fault of the part, inasmuch as its coctive or [illegible]ulsive faculties do not their duties: or through fault of the Nutriment, when it is vitious; and such, as to cause such great quantity of Excrements: or when gros matter is produced, which resists the expulsive faculty.

III. *Humors offending by their whol substance, are those, which having gained within the body a peculiar corruption, they do after an hidden manner, and by their whol substance affect the same.* Understand both preternatural excrementitious Humors, and natural excrementitious Humors retained, as seed, clotters of blood, menstruous blood. The *Signs* are, the sudden invasion of malignant symptomes, as Raving, Fainting away, &c. The Idea of Diseases themselves, &c. The *Cause* is, both *alimentary matter*, which has in it the seeds of that corruption, and while tis mixed with others, hurts not, but being separated from them, and existing by it self, it becomes poyson. We verily feed upon many things, that are fed with poyson. To which ad *Heat*, joyned with the principal Agent, & the Matter, to which may be joined a disposition of the Body hereditary or acquired. Particular Influx of the Heavens, the Air receiveing the Astral Influxes, and terrestrial Exhalations. Contagion, Poyson. Finally, the Imagination and Affections of Passions. Now the foresaid determinate *Corruption*, is brought to this degree, ofttimes by long Digestion and Fermentation: whence it is that the Plague does not range up & down every yeer, although every year the Humors are many waies faulty, yea, and it often plaies its pranks without any putrefaction, as in plants and Animals, venoms are bred without Putrefaction; and in the most dry Air, pestilential venom is bred, in which there appear no signs of putrefaction.

Article. II. *Of Winds.*

Flatus or Wind, is a plentiful vaporous Spirit, raised in mans Body by a weak Heat, out of meat and drink and a clammie humor.

The *Subject* is the body of Live-wights, but chiefly the stomach and Guts.

The *Signs* are, stretching with heavines, wandring pains, the foregoeing of the Causes that breed wind. The disease caused thereby, rises on a suddain. The Urines are ful of bubles on the top.

The *Causes* are. 1. Meat, much and moist, which can of it self hardly be digested; and somtimes it is in its own nature windie, as are fruits which wil not keep, windy roots, great Sea fishes, al fat things, & such as are sweet, clammy, &c. 2. A crude Humor, and which is clammy. 3. Weak heat, not able to digest the matter, whether it be weak of it self, or in comparision of the matter on which it works.

'Tis *divided* into *flegmatick* wind, which is slowly moved and lasts long. *Cholerick*, which is biting, sharp, and quickly vanishes. *Melancholick*, which is fixed, and causes sadnes. And *Sanguine*, which is mild, and is offensive more by its Quantity than Quality.

Article. III. *Of things totally against Nature.*

Things totally against Nature are *Stones* and *Wormes*.

I. *The Calculus or Stone is a solid & strong substance bred in the Body of Man out of a slimy tartareous mucilage, impregnated with a putrifying faculty, by the Assistance of Heat.*

Its *Subject* is the Body of Man, and therein the Brain, Liver, Gall-bladder, Stomach, Kidneys, Pils-bladder, &c.

The *Signs* are suplied from the parts themselves. There is in a manner nothing to be said of them in general.

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The *Cauſe* is not *flegm.* For many are troubled with flegm that are not moleſted with the ſtone; and many have the ſtone, who keep an accurate diet; but a *putrefying* or *ſtone-making juice.* Hence it is, that perſons ſubject to the ſtone, make water like ſhivel, which afterwards turns to a ſtone. Now it proceeds from the dreggyneſs of meats, which being retained, it glews to this or that part, is daily encreaſed by arival of new matter, when it laies hold of a clammy, thick, and earthy matter, it coagulates the ſame, and the internal ſalt of Mans body coming afterward, which the foreſaid tartar by reaſon of its natural clamminеſs eaſily receives, and hides within it ſelf, at laſt is congealed into a perfect ſtone.

II. *Wormes are little live creeping things, bred in the Body of man, of a thick, clammy excrementitious humor, containing in it ſelf a kind of vital Principle; by a quickning heat, raiſed by putrefaction.*

Their *Subject* is the body of man, and therein the Brain, Liver, Stomack, &c. The *Cauſe* is. 1. An Humor furniſhed with a kind of vital principle, ſo that of ſeveral Humors ſeveral ſorts of wormes are bred; and the humor is ſometimes thick and roaping, ſometimes bitter, ſo that wormes wil be bred of wormwood and ſea ſalt. 2. Heat, not celeſtial but bred in the body; and that moiſt but not alone. This by little and little ſolves the humor, and ſtirs up the ſpiritu[illegible]eat, and principal of life which lay hid in the matter.

Title III. *Of Symptomes.*

A Symptome is an Affection beſides Nature, in thoſe things which belong not to that Conſtitution which is neceſſary to the action of the Parts, and which follows ſome other thing beſides nature.

The SIGNES of the Symptomes are diſcovered by one or more of the ſenſes; and in caſe they are hid, they are drawn from the ſame fountains, with the ſigns of Diſeaſes and cauſes, that is to ſay, from the Effects and Cauſes.

The CAUSES from which they ariſe, are Diſeaſes, Cauſes and their Symptomes.

T is divided three manner of waies eſpecially.

I. One is of the *Diſeaſe,* which immediatly follows the diſeaſe, no affection according to Nature, intervening. Another of the *Cauſe* when the Action is hurt, by ſome morbifick Cauſe. A third of a *Symptome,* when one Symptome depends upon another Symptome foregoing.

II. One is an *Action Hurt,* whether it be aboliſhed, diminiſhed, depraved or augmented. It *happens* either by fault of faculty, when the inſtrument is immediatly ill affected; or when the abſence of the ſpirits and innate heat, is reſerved; or by *reaſon of ſome external Error,* when thoſe things faile, with which the actions are, or without which they cannot be performed. Another is of *things voided* and *retained:* Another of *qualities changed,* which depend upon the Actions hurt and the *Humors* proceeding therefrom.

III. Another is of *the Natural Faculty,* viz. The nutritive, augmentative & generative. Another of the *vital faculty.* Another of the *Animal faculty,* to which appertaine the Symptoms of the *external ſences,* of the internal ſenſes, the motive faculty &c.

THE

THE THIRD BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching Medicaments.

Title, I. *Of Medicaments in General.*

HAving already spoke of the preternatural disorders which afflict the Bc of Man, it follows that ... should now speak somwhat of *their Removal.* Now touching their removal, two things are considerable, 1. *By what Meanes they may be removed.* 2. *How and in what manner they ought to be removed.* The Meanes are termed *Medicaments*, which are considered either in *general* or in *special*, and according to their differences. *A Medicament in General, is whatever being applied to a Sick Body, is of Ability, by its faculties, to reduce the same from a Preternatural, to its natural state and condition.*

Concerning which, five things are considerable. The *Name*, *Faculties*, *Dose*, Adulteration, *Substitution* and *Collection.*

I. If we consider the Name, you must know that we understand not the word Medicament in the most common acceptation, for so it comprehends poisons and paintings or Fucuses; but in reference to mans body, and that either generally considered, forasmuch as it neither nourishes nor destroyes the same; or specially, forasmuch, as it is troubled with sickness.

II. *The faculties of Medicaments* are, 1. Manifest and either the first, Heating, Cooling, Drying, Moistening, which are sometimes compounded; or the second, which arise from the first, and vary in divers respects, so that they are certaine Modes thereof, as, Attenuateing, Absterstive, Deobstructive, Rarefactive, Discusstive, thickning, astringent, repelling, stupifying &c. 2. Hidden, in respect of which, Medicaments do either by a peculiar faculty evacuate some particular humor; or they have some peculiar affinity with some member; or they resist poison. *Observe, I. Touching their faculties in General.* 1. That they spring from their forms, and the formes act by them as by Instruments, and therefore the faculties as they are referred to the Actions, are

are termed certain effective causes, by mediation of which the formes act upon a determinate Body. 2. That they are either actually in the subject, so as presently to operate, as burning is in fire. Or potentially, when the medicant needs the Heate of the body to bring it into act, which is done sooner or later, either in respect of the matter resisting, and the Heat acting, or in respect of impediments of the matter, whereby its actions are bound up. 3. Or they operate by accident, some other thing intervening, as cold water stirs up Heat in the Convulsion: or of your selves, and immediately. II. *Concering the first faculties.* 1. That sometimes they are equally in one and the same subject, so that either they are al equal, or two equal, and one unequal. 2. That the Inequalities which are, do more or less depart from Temper. Those of the *first degree*, do alter a temperate body so, as the alteration is hardly discerned. Those of the *second* degree make evident alteration, but without hurt. Those of the *third* degree, alter vehemently and not without some hurt. Those of the *fourth*, with evident Hurt. 3. That moisture, which of al qualities is least active, cannot be of the fourth degree. 4. Things vehemently hot, do never moisten. 5. Nothing dries in the fourth degree, but it likwise burns; in the third degree many do, which are cold and astringent. III. *Touching occult Qualities*, that they depend upon hidden properties springing from the former. Now the soule as being Architectrix of her own House, produces this inferior Forme, to be as it were her subject matter in a wel disposed body, which though it informe its whol matter, yet it cheifly resides in the radical moisture, implanted spirit, and inbred Heat, which is even in dead bodies, and it may therewith be separated from the rest of the gross body, and may rightly be termed a fitt Essence. IV. Touching their knowledg. The *first* are knowen by reason and experience, the former of which is taken from the swiftness or slowness of the action, respect being had to the patient, from smels, tasts, colours, tangible qualities, age, place of production, operations and knowen vertues. The *second* qualities, the first being known, cannot remaine hid, as being their Handmaids. *Hidden qualities* are cheifly conjectured from similitudes or signatures, of which see *Porta* in his Phylognomonicks, and *Crollius* touching signatures.

III. The *Dose* is requisite in a medicament, for none works aright, unless given in just quantity. This is determinated with regard to the quality, part affected, and the sick Patient. Fit measured by us, with a graine, a scruple, a dram, an ounce, a pound, a spooneful, &c. By the ancients with a mystrum, a cyathus, an Acetable, a quartarie, an hemina, or cotyla, a sextorie, a congius, an urna, amphora and culeus.

IV. *Adulteration*, has chiefly place in outlandish drugs, as *Champhire* brought from Borneum, is adulterated with fragments of stones or a certaine gum called chambderros, like crude ambar, or the dust of a certaine wood. So *Bezar-stone* is many waies counterfeted. Mosch is mixed with a certaine stuf made of Goats blood, bread toasted and poudered, and the gum Ladanum. *Amber-Grese* is made up of the pouder of Lignum Aloes. *Cinnamon* is counterfeted, by barks of Tamariske steeped in Cinnamon water and then dried. *Benzoin or Benjamin*, by a mixture of Rosin, olibanum, and a little storax. *Opobalsamum* with Oile of Liquid ambar. *Opium* with Meconium.

V. The occasion of *substitution*, or useing Quid pro quo, is the want of some simples. So *Calamus aromaticus* is used in stead of acorus; Southernwood in place of wormwood; origanum for Southernwood; Hypocists for Acacia; an apple for Acanthus; Anise for Ammi; Acorus for Amomum; peach kernels for bitter almonds; sublimate for Arsenik; Schenant for Calmus Aromaticus; Cyperus for Cardamomes; Vulgar Canella for Cinnamon; Figs of Marsellus for Dates; Sage for Dictamus; Elaterium for white Hellebore; Lapis Lazulie for black Hellebore; Erysimum for Rocket; Poppine for Mandrake; Schenant for Syrian Nard; Cloves for Nutmegs; Lovage roote for xylobalsamum &c. of which see Authors, especially *Renodeus* in the fourth Book of his Pharmacopeia, Chap. 16

Title, II. *Of the sorts of Medicaments and their Differences.*

Chap. I. *Of simple Medicaments.*

Article, 1. *Of such Medicaments as are dug out of the Earth.*

MEdicaments *considered in their sorts are variously divided : howbeit the cheif differences are those which are taken from their constitution, qualities, and virtues, the parts of mans Body, the Planets and Signs of the Zodiack, to which Magical medicaments may be added.*

In respect of their Constitution, Medicaments are Simple or Compound. I cal those Simple, which are such as nature has produced, having received no composition by art, but go into the composition of artificial medicaments : and they are Fossilia, Vegetabilia, Animalia, or Microsmica. *Fossilia*, are such medicaments as are fetcht out of the Bowels of the Earth. Under this kind are contained, I. Earths, which wil dissolve when water is poured upon them, such as. 1. *Argilla*, potters clay, of very little, though some use in physick. 2. *Chalke*, useful in want of appetite. *Terra Lemnia*, of a red coler and fat, so that held in the mouth it seemes to be made of suet. 4. Bole *Armeniack*, or oriental Bole, which is counted best, if it wil presently rub in a mortar to very fine pouder, and has no grittyness or sandiness in it. Red bole is the vulgar Bole of the Shops, 5. *Cimolia*, either the white or that enclineing to purple ; being fat, and cold to feele to, it is best. 6. *Terra* Silesiaca, or strigensis, which *Montanus* found out.

II. *Concrete or congealed juices*, such as 1. *Salt*, whether it be Sal gem, or Sea Salt; the former of which is dug out of Mines, and being thrown into the fire, it does not crackle, but takes flame. 2. *Nitre*, as wel that of Dioscorides, of a rosie or white color, as the vulgar Sal Nitre or Salt peter so cald ; the froath which by long boileing it sends forth, is termed Aphronitrum. 3. *Allum*, especially roche or rock allum. For the Alumen scissile, or leader alum, which is not sensible of the force of fire, and *Catinum* made of the ashes of the plant Kali, are not in use. 'Tis called stipterion. 4. *Vitriol* or *Chalcantum*, which is nothing else than a Coagulum of sulfurous, brazen or iron saltness. Se thereof Verbezius and Billichius in the first book of Chymical observations, Chap. 13. The white and native is counted best ; when burnt, tis termed Colcothar. 5. *Sulfur*, which if it be natural, it is shineing and transparent like a Glowworme, of a light ash color without, and yellow within : if made by Art, it is very fat and greenish.

III. The several sorts of *Bitumen*, such as 1. *Haphtha*, strainings of Babylonian Bitumen, fluid, white, extreamly apt to take fire. 2. *Petroleum*, as if you should say, oile out of a rock, which is gathered in the country about Modena in Lombardy. 3. *Spermaceti*, or a whiteish ambar, the Creame of the Sea. 'Tis collected in the Sea, being a fatty and branny foam thereof. Choose that which is white, fat, &c. 4. *Ambar-greise*, which is cast out of the Channels of the Sea upon the shoare, & growes hard by lying in the Aire. The best is of an Ash-color most fragrant, which being prickt with a pin, sweates out much fat moisture. That which is made by Art is commonly black, and put in water, grows quickly soft. 5. *Succinum* or amber, called citrine or yellow amber, Electrum, Carabe, is found in shallow parts of the Sea, and on the shoares thereof. The white is lighter, fragranter, and better ; the yellow, is also good, if transparent, and if being rubbed it smel like Rosemary. See thereof *Libavius*. 6. *Gagates*, jeat, is black, crustie, and ful of Bitumen ; if set on fire, it flames, smells like bitumen, and so it is distinguished from pit coales.

IV. *Stones*, such as are. I. Among the *more precious* sort. 1. The *Smaragd*, of which the Scytian is best, being of one color, and that a light Green. 2. The *Sapphyr*, which if it be of an azure color is best ; if of a watrie color, 'tis of smal esteem. 'Tis found in Zeilan, Calcut and Pegu. 3. The *Rubine* ; of which there are four kinds. The true and best sort, is of the color of Indian Lac or Scarler, the slightest are the Balassius and Spinellus. 4. The *granate*, which is best if it have the color of a march violet, mingled with the red. 5. *Sardius*, which is commonly found at Sardis, and thence has its name ; is most approved, when reddest. 6. *Hematites*

tes or *Bloodstone*, greenish, party color'd, sprinkled over with bloody spots. 7. The *Nephritick stone*, dark, party color'd, mingled of green and other colors, its surface seems alwaies fat. 8. The *Chrysolite*, which is either Oriental, or Europæan. The former is soft, and has a golden color, with more or less blackness. 9. *Chrystallus*, which is then best when most transparent. 10. The *Hyacinth*, which is the better for being but one only color, The worst is the Arabian. 11. Among the less precious sort are. 1. *Lapis lazuli*, which is of a dark azure color, adorned with golden streaks, or specks. 2. *Lapis Armenius*, which is variegated with many green and blew spots, and some blackish ones, the Sky color'd is preferred before the deeper blew. 3. *Lapis judaicus*, roundish, with equi-distant streaks al along, as if so turned by Art. 4. *Lapis Lyncis*, cald also Belemnites, is of a pyramidal shape, and is found of divers colors. 5. *Magnes*, or *Heracleus*, so much the better by how much more Sky color'd and hoary. 6. *Osteocolla*, which is of the shape of a bone, and is also termed *Holosteus*. 7. *Silex*, a flint, a wel known stone. 8. *Talcum*, a stone like the *Lapis specularis*, but more thin, scaly, greenish, resisting the fire, and fixed: which also some relate of the Osteocolla, [illegible] *Unicornu fossile*, or a stone which in color and smoothness and frequently in the very shape resembles an horn. III. Among *those taken out of Living Creatures*. 1. *Coral*, especially the red. That is counted the best which is of a flourishing color, smelling like Sea weeds, branchy, brittle; not the rough scabby and hollow. 2. *Lapis spongius*, which grows in spunges, being porous, friable, and of a white or gray color. 3. *Alectorius*, or *Cock-stone*, that's most esteemed, which has appearing therein as it were a crum of meat congealed, pretty bright in appearance. 4. *Chelidonius*, the swallow stone, which is Hemisphærical, and alwaies hollow within. 5. The *Carpie* stone, which is triangular, and is found about the beginning of the dorsal Marrow. 6. *Crabs eyes*, a thing wel known. 7. *Umbilicus marinus*, which is found in the Orifice of a snail, when it shuts it selfe up in the winter. 8. *Lapis Caymanum*, which is taken out of the Bellies of Crocodiles or mighty lizards in *America*. 9. *Lapis porcinus*, Hogstone, which is found in the Gall of Hogs near *Mallacca*. 10. *Perch stone*, found in the fish so called: now there are two found in the said fish, white, oblong, plane, toothed on the one side. 11. *Bezoar stone*, of which kind the Oriental are praised, the Persian, such as are blackish green, whose under crust shines, when the uppermost is taken away. The true Bezoar is known, in that being rubbed with chalk it becomes of a yellowish green; or being steeped in water three hours, it becomes no heavier than it was before. 12. *Ætites*, Eagle stone, which is said to be carried by the Eagle into her Nest; of which see *Laurembergius*.

IV. *Metals*, which are either *natural*. 1. *Gold*, which the chymists cal *Sol*, the Sun. The best is that of *Arabia*, the next that of *Hungaria*, the next to that the *Rhenish*. 2. *Silver*, which the Chymists term *Luna* and *Cerebrum*, the Moon and Brain. 3. *Tin*, which the Chymists cal *Jupiter*: The purest is found in *England*. 4. *Braß*, or *Copper*, which the Chymists term *Venus*, the best is in *Cyprus*. 5. *Iron*, which the Chymists cal *Mars*: the best is that of *Damascus*, and the *Spanish*. 6. *Lead*, or *Saturne*. 7. *Quicksilver*, or *Mercury*, the Idol of Chymists, which comes out in drops from the Clods of many Mines. To these ad *Stibium* or *Antimonium*, the Cure and torment of the Hermeticks, which was of old, sold as it was dug up, but now it is tryed first. II. Or *Artificial*, as are. 1. *Scoria*, or the dross which comes when the Oar is tryed in the furnace. 2. *Cadmia fornacum*, viz. That which cleaves to the roof of the Furnaces when the oar of metals is tryed. The best is that which is afforded by the furnaces of *Cyprus*. 3. *Pomphodix Nihili*, or Tutia; which is a volatil spark which flows from meked Brass. The best is the white and smooth, that of *Cyprus* is most commended. 4. *Spodium*, understand that of the Greeks, and not of the Arabians; and it is nothing but a clot of sparkles or ashes which fly in the meking of brass, and quickly fal to the ground. 5. *Flos æris*, to which ad verdigrease and the scales of brass. 6. *Cerus*, which is drawn out of lead, with the help of vineger. The most esteemed is that of *Rhodes* and of *Puteolum*. 7. *Cinnabaris*, which comes from the Shops of the Quicksilver Men. 8. *Literidge*, or the thinner dross of silver purged from the plumbaginous matter, which is blown out by blast of the Bellows.

Article, II. *Of Vegitable Medicaments.*

Vegitable Medicaments are, trees, shrubs, and herbs; inasmuch as they serve to remove the disorders of the Body, either in whol or in part, viz. *By their roots, woods, barkes,*

leaves, tops, flowers, fruits, and humors. I. Those *Trees* are 1. *Aple-bearers*, as the Apple tree, the Quince tree, the Citron tree, the Orenge tree, the Peach tree, the pear tree, the Fig tree, the Sycomore tree, the Mulbery tree, the Grab tree, the Medlar tree, the Service tree, the Apricock tree, the Malacotone tree, the Damsin tree, Myrobalan-plum tree, the Sebesten tree, the Jujubee tree, the Cornel tree, the Lotus, the Cherry tree, to which we may ad the Ebeny and the Guaiacum trees. II. The *Nut-bearers*, the Almond tree, the Walnut tree, the Hasel tree, the Filberd tree, The Chestnut tree, the Pistachio tree, Glans unguentaria tree, the Styrax tree, to which many outlandish Nuts, must be referred. III. *Date-bearers*, such as the Palme, IV. *Mast-bearers*, as the Beech, the Oake, The Cork, the Suber, the Ilex and Smilax of the Arabians, whereunto also belong Misletoe, Galls and Oake apples. V. *Berrie-bearers*, as the Sanders tree, The Mastick tree, the Frankincense tree, the Terpentine tree, the Balsam tree, the Sumach tree, the Cocconilea, the Ash tree, the Holme tree, the Linden tree, the Wild vine, the Ostrys tree, the Cotton tree the Maple, the Plantane, the Sassafras, the Ricinus, the Barbery tree, the Gooseberry tree, the Elder, the Laurel and bay tree, the Charnelea, the Thymelea, the Cneoron, the Myrtle, the Butchers Broome, the Rasberry tree, the Box tree, the Olive tree, the Agnus castus tree, the Privet; the Primprint, the Philyra, the White bramble, Box thorne, the black berry bush, the Capar tree, the Savine tree, the Cedar tree, the Cypress tree, the Juniper tree, the Asparagus, the Eugh, and Dragon tree. VI. *Spice-bearers*, the Nutmeg tree, the Mace tree, Macer tree, the Cassia lignea or Canella, the Cinnamon tree, the Folium tree, the Clove tree, the Peper tree, the Cubebes tree, the Amomum tree, the Graines of paradice tree, and the Cardamom tree. Hither also may Lignum Aloes tree be referred. VII. *Cod bearers*, as the Cytisus, Anagyris, the Acacia the Aspalathus Genista or Brown, Spartium, Scorpius, Cliothen, Sena, Euonymus Nerion. VIII. *Cone bearers* as the conebearing Ceader, the Pine, the Larch tree, the Pitch tree, the Fir tree. IX *Cotkin or cats taile bearers* as the willow, the Alder, the Elme, which beares also bladders, the Poplar tree. X. Rose bearers, the Rose tree, the Cistus and Cistus Ledum. &c. XI. Brush trees, Tamariske, Heath &c.

II Also *Herbes* are variously divided. For they are. 1. If we regard their *roots*, *Bulbous*, as the Bulbous flower delize, the stock gilloflower, Safron, Colchicum, the Onion, the Leek, the Squil, Garlik, Moly, Orchis or Cullions, and Satyrium or Dogs-stones &c. II. If we consider their *Leaves* they are, 1. *Long leaved and stalked*, as Grass, Rushes, Nardus, Cyperus, Horstaile, the Reed, Papyrus or Egptian paper, Xyris, Orice, Acorus, Galangal, Ginger, Zedoary, Costus, &c. 2. *Thick-leaved* as Houseleek, Venus navel, Aloes, Rhodia, Telephium, Purslane, Cepea Crithmum, Kali, Tragum. 3. *Hairie leaved*, Borrage, Gromwel, Cynoglossum, or Hounds tongue. 4. *Nervy leaved* as Gentian, Plantan, Flea wort, Bistort, Pond weed, Water-lilly, Cucko-pintle, Hellebore &c. 5. *Round leaved*, the two Birthworts, Colts foot, Broad dock, Bur dock, Asarum. 6. *Hair like*, as Phyllitis, Hemionitis, Asplenium, Lunaria, Maiden haire, Polytrichum, Wal rue, Ros-solis, Ferne, Polypodie, and others. 7. *Thorny or prickly*, as the Thistle, Scolymus of Theophrastus Venus bason, Eryngos, Euphorbium, Dragant &c. 8. *Three leaved, five leaved &c.* 9. *Soft leaved* as Marsh mallowes, Mercury, Rhubarbe. &c. III. If they beare *flowers* they are. 1. *Turn crowned and helmet fashiond*, as Mints, Calamints, Origanum, Penyroyal, Hyssop, Time, Stechas of Arabia, Lavendar, Vulgar spike, Ground pine, Oake of Jerusalem, Sage, Nettle, Betony, Eye bright, Scrophularia, Prunella, Hedge hyssop, Dictamnus &c. 2. *Star fashioned*, as Rubia, Gallion, Cruciata, Rue. 3. *Spur fashiond or lark heeld*, Aquilegium, Roial Comfrey, Toad-flaxe &c. 4. *Button tufted*, as Cumin, Fenel, Dil, pellitory, Fennel-giant, Thapsia, Turpit, Hogs-fennel, Carot, Chervil, Smallage, Angelica, Imperatoria, Laserpitium, Panax, Caraway, Coriander, Anise, Pimpernel, Myrrhis, Hemlock, Lovage, Filipendula. 5. *Berry bunched* Elecampane, Pellitorie, Mugwort, Sneezwort, Wormwood &c. 6. *Headed*, Scabious, Jacea, Cyanus, Scorzonera, Caltha, Succisa, Cardus, &c. IV. If *Fruit*, they are 1. *Apple-bearers*, Mandrake, Cucumber, Melon, Pompion, Anguria, Gourd, Colcquintida, wild or Ass cowcumber. 2, *Codded*, as are besides the pulses, and the pot-herby sort, Hedysarum, Ornithopodium, Polygala, Onobrychis, Galega, Glycyrrhize, Fumitory, Celondine, Aquilegia, Nigella. 3. *Case carriers*, Garden Cresses, Shephards-pouch, Scurvy grass, wild radish &c. 4. *Vessel-bearers*, as Centorie, Mouse eare,

eare, Flax, St. Johns wort, Anagallis, Mony wort, Rupture wort, Poppie &c. V. If we regard their uſe, they are. 1. *Cornes*, as Wheate, Spelt, Barley, Rie, Oates, Blaſted Corne, Rice, Milium, Panicum, Phalaris, Indian Corne. 2. *Kitching hearbs*, as Rapes, ſmal turneps, Iberis, Taragan, Campanula, Rapiſtrum, Rocket, Muſtard, Alliaria, Cole wort, Docks, and Patientes, Betes, Blites, Centaury the greater, Orach, Pellitorie, Mercurie, Lettice, ſowthiſtle, Cichory &c. 3. *Pulſes which are gathered*, as Beanes, French Beanes, Peaſe, Tares, Fetches, Lentils, Orobus, Cicer, the Lupine, Fenugreek &c. VI. *If the manner of growing*, there are *convolvuli or Scandentes*, ſuch as twiſt themſelves about other plants or props and ſo reare themſelves as are beſides apple bearers and the pulſes, Scammony, Soldanella, Salſaparilla China, Bryonie, Mechoacan, Hops, the Grape vine, Lilly Convally, Ivy, Indian, Watercreſſes, Birthwort, Bindweed, Gramen parnaſſi, Saxifrage &c. VII *If their juice*, ſome are *milkie plants*, as Tithymallus, Eſula, Peplus, Peplis, Lathyries, and Chamaſyce &c. VIII. If their *place*, in which they grow, they are 1. *Garden wood*, *Feild*, *Mountaine*, *Meadow and water plants*, as are Moſs, Duckweed, Lungwort, Sea nettle, Sea weed, Arſmart, Anagallis, &c. IX. If we regard the *virtues*, we ſhal find in a manner infinite differences of Hearbs; of which I ſhal ſpeak hereafter, as much as wil ſerve for our preſent purpoſe; and more largely and exactly, elſewhere,

III. The Humors of plants are beſt diſtinguiſhed into *thickned juces*, *Gums*, *Roſins*, *and Pitch*.

I. *Thicked juices* are, 1, *Ammoniacum*, which is named from the Oracle of Jupiter Hammon, tis bred in a tree called Metopion. That is moſt approved which is ſincere and unmixed and condenſed into clotters like Frankinſenſe, ſmelling ſomewhat like Caſtorium, Bitter in taſt, yellow without, white within, growing ſoft if it be wrought between the Fingers. 2. *Galbanum*, the juice of a Ferulous plant which grows in Syria. The beſt is griſtly, yellow, fat, not woody, of a ſtrong ungrateful ſmel, becauſe it retains in it ſome of its ſeeds and ſticks. 3. *Opopanax*, a juice flowing out of the root of Hercules his Allheale, That is moſt eſteemed, which is white within, yellow without, bitter, ſtrong ſented, fat, milkie like Galbanum, and when it is melted reſembling a milkie liquor. 4. *Sagapenum*, or Serapinum, the liquor of an herbe like fenelgiant growing in Media. Thats beſt which is ſincere, tranſparent, red without, within when it is broken, yellow, or compact of yellow or whiteiſh drops, growing ſoft between the fingers. 5. *Opium*, or a milkie liquor running from the ſtalke of a black poppie lightly gaſhed. The beſt is that which is white, or yellowiſh like the Haires of a Lions-skin, congealed into a Maſs as it were made up of little graines of divers colors, dirty and of a ſtrong and virulent ſmel. 6. *Aloes*, which is either Caballina, or Hepatica, or Socatrina you muſt chooſe that which is fat, void of Stones, friable in winter, ſoft in ſummer, compact like the ſubſtance of the Liver. 7. *Scammony*, which is reſerved of a milkie roote being cut, out of which it runs and is dried. Thats beſt which is tranſparant, ful of holes like a ſpounge, and when it is rubbed againſt the tongue it ſhewes a white liquor on its ſurface, reſembling milke. 8. *Elaterium*, or the juice of the wild Cowcumber thickned, which is the moſt laſting of al medicaments; and that is beſt which is oldeſt. 9. *Euphorbium*, or a moſt ſharp biteing juice of a tree, reſembling the ferula. That muſt be choſen which is pure, tranſparent, white or yellow, and biteing, and which being lightly toucht with the tongue, inflames the mouth a long time after. 10. *Juice of Lycorize*, which is drawen out of the roots, and is condenſed into Balls or little cakes. 11. *Succus Acaciæ*, a juice preſt out of Acacia a plant in Egypt. Chooſe that which is moderately yellow and odoriferous. 12. *Acacia Germanica*, or the juice of boiled ſloes, preſt out, ſet in the Sun, and dried. 13. *Manna*, which is gathered in Calabria from the Aſhen trees. Chooſe that which is white and not above a yeare old. 'Tis counterfeted by ſugar pemies wrapt up in leaves of herbes. 14. *Gummi Gotte*, or Cambogia, Gummi Gamandra, Gummi de peru, which is extracted out of the Indian Ricinus. See thereof *Reudenius*, *Lotichius*, *and Bontius* in his Medicina Indorum.

II. *Gumms* are, 1. *Gum Arabick*; the beſt is tranſparent like Glaſs, unmixt, in crinkled bits repreſenting wormes, and white. 2. *Gum tragant*, which drops out of the root of thorny plants, which the Greeks cal Tragacantha. 'Tis tranſparent, white, ſweetiſh, light and ſincere. 3. *Sarcocolla*, the teare of a tree growing in Perſis, like fine franckincenſe, yellowiſh and bitteriſh. 4. *Gummi Hederæa*, of a yellowiſh red color, ſtrong ſmell, and biteing taſt. 5. *Cancamum*, or

the

the teare of an Arabian tree, somewhat representing myrrhe, of a very strong tast. 6. *Lacca officinarum*, Gum lac of the shops, is made of the juice of a certaine tree, in Pegu and Malavar. Tis said to be made by the winged Pismires. 7. *Sanguis Draconis*, Dragons blood, or the juice of a certaine tree which being congealed, resembles dryed blood. It makes water of a milkie color, but without mixture. 8. *Assa fetida*, or the Teares of Silpheum growing in Libia and other Countries. Choose that which is unmixt, resembling Garlick in smel, and clammie. 'Tis adulterated by the mixture of meal, bran, and Sagapenum. 9. *Champhire of the shops*, or the Resinous Teare of a certaine high tree. Choose that which is white, transparent as christal, not spotted, fragrant, apt to crumble between the fingers, and which being set on fire, can hardly be quenched. 10. *Juniper Gum*, drie, hard, yellow, like mastich. Liquid Varnish is made of it and Linseed oile. I forbeare to speake of Cherrie tree gum, Elme tree gum, &c.

III. *Rosins* are either moist or *drie*. The moist are. 1. *Terpentine*, or a liquor which flowes from the Trunk and boughes of the tree Terebinthus. The best is white, transparent, enclining to skie color, fragrant and biteing. 2. *Rosin of the Larch tree*, or Terpentine of the shops, which is many times sold for the former. The best is the purest, most fragrant, somwhat transparent, and which falls hastily and equally from the finger dipt into it. 3. *Maistich* which flows from the Lentish tree, and seems referable to the Gum rosins. The best is white, shineing, fragrant, crumbly, and which growes in Chios. 'Tis counterfeited, with a mixiture of franckincense and Rosin. 4. *Olibanum of the shops*, or the liquor of an Arabian tree. The cheise is the male, that which drops out, round, white; the next in value is the Orobium, which growes in Amelum, which is smaller and yellower; the next to that is Amomites, which is white, and yeildes to the fingers when it is softned, like mastich. 5. *Myrrhe*, or the Tear of a tree which growes in Arabia, like the Egyptian thorne, which tree being cut it drops downe upon mats spread beneath. The Troglodytick myrrh is counted best, which is greenish, transparent and biteing; the second in repute is thin and clammie like Bdellium; the third in value is that which is termed Caucalis, black and parched; the worst is the factitious which lookes like Gum. 6. *Storox* or the teare of a tree like a Malocotone growing in Syria. The best is yellow and fat, rosinie, with whiteish drops; which being wrought between the fingers, sends forth an honey-like moisture keeping the fragrancy of the lump. 'Tis adulterated by the dust of a tree which the worms have made by their gnawing. 7. *Liquid Ambar*, or an oily rosin, of a most sweet and strong smel, flowing out of a certaine tree in the west Indies, called Ocosotle. 8. *Bdellium*, or the Teares of a tree in Bactria. That is most approved, which is bitter, transparent, like Bulls-glue, fat within, and easily growing soft. 9. *Benjuinum* or *Benjamin* a gum flowing from the wounded boughes of a certaine tal tree in the East-India's. The best has white spots in it resembling almonds, and grows in Zeilan. 10. *Tacamahaca*, or a Rosin which flowes out of a wounded Tree which growes in Nova Hispania. In color tis like Galbanum, it has white nailes, a strong smel and tast, and sticks fast to the skin. 11. *Gummi Elemi*, or a transparent white teare, with yellow particles intermixt, reduced into a Mass; and rendring a sweet smel when its burnt. 'Tis brought out of Ethiopia. *Dioscorides* describes it yellow somewhat like Scammonie, and biteing. 12. *Colophonia of the shops* is a dried rosin, of an oilie substance, yellowish, drie, and friable, being the remainders of the fir and pitch tree, when they are clarified by the fire, being thickned and hardned by cold. Choose that which is transparent, fragrant, and resembles the smel of franckincense when 'tis burnt.

III. 'Tis needless that I should ad any thing concerning *pitch*; Touching Plants consult the *Theatrum Botanicum of Bauhin*, which is now comeing forth: to the more easie knowledg whereof my doctrine of Plants, and other Treatises, which in dispight of envie, I have in hand, shal lead thee.

But the knowledg of the *Vertues of Plants*, depends upon the signatures also, or similitudes, which they seem to have, with the *Parts*, *Humors*, and *Diseases*, whether it happen in shape, which is in this case most considerable, or only in sensible qualities, or in actions and manners &c. Howbeit, these notes are either *Fixed*, which are seen in seeds, Roots and Flowers: or *movable*, which are taken from Tast, Smel, Color, Shape, Hairyness, Smoothness, &c.

I. As for the *Parts of mans Body*, 1. The *Head* is represented by the Poppie, Wal-nut, Indian Nut, Peonie, Squil, Agarick, Lilly convallie.

convallie. 2. The *Eyes*, by the Graines of Herbe Paris, flower of Eye bright, Anthenis, Mary Gold, Hawkweed, Anemone, Scabious, &c. 3. The *Teeth*, by Henbane without cods, ſtones of a pomegrannate, pine kernels, Toothwort, Leaves of Prick-Madam, root of the ſmaller Celandine. 4. The *Eares*, by Aſarum and Garden Scurvigraſs leaves. 5. The *Noſe*, by the leaves of Menaſtrum Aquaticum. 6. The *throat* or *weazand* by Winter-green, Uvularia, Cervicariat and Caſſia Fiſtularis. 7. The *Lungs*, by ſtony lungwort, ſpotted Lungwort, lungwort of the Oak. 8. The *Heart*, by pome-citrons, The roots of Anthora, The anacardine Beanes. 9. The *Liver*, by Liverwort, the toad-ſtoole that growes upon Birch and Oake, the Herbe Lichn. 10. The *Spleen*, by Scolopendrium, Hearts-tongue, Lupines. 11. The *Stomach*, by Bindweed, leaves, Ginger, Galingal. 12. The gutts, by Bindweed, calamus aromaticus, Caſſia Fiſtularis. 13. The *Navil*, by Umbilicus Veneris. 14. The bladder, by Alkekengi, Bladder wort, Colutea, nightſhade. 15. The *Privites*, by Cuckoes-pintle, Beanes. 16. The *Stones*, by ſeveral ſorts of Orchis, Satyrium, Dracunculus, leekes, Stags pizzle. 17. The *wombe*, by Ariſtolochia rotunda, round birthwort, Mace, Sabine. 18. The *Reines*, by Purſlane. 19. The joints, by Hermodactyls, Sarſa pariglia. 20. The *Hand* by Palma Chriſti. 21. The Haire of the Head, by the Moſs of trees, and Maiden haire.

II. As for what concerns *Humors*. 1. *Cholor yellow*, is repreſented by ſuch plants as have flowers or juices of a yellow or Safron-colour, as Aloe, Senna, Wormwood, Spurge Safron, Coloquintida, Rhubarbe &c. 2. *Leek-colored* Choler, Blites, Orach. 3. *Pale Choler* by Bryonie. 4. *Black-choler*, by ſuch whoſe flowers, Leaves or juice, are blackiſh purple, or Skie-colored, as Beanes, Lentils, Vetches, Borrage, Bugloſs &c. 5. *Flegm*, by white-flowered plants, as gourds, Lettice &c. 6. *Blood* by ſuch as are of a red color, or ſtaind with a red color, as Red ſanders China root, Fearne root, Sorrel root.

III. *As for Diſeaſes*. 1. The *Stone* is repreſented by Gromwel, white-Saxifrage root, nutſhells and their kernels. 2. *Smal riſings* by Lentiles. 3. *Excreſcences* by Agaric, and Galls. 4. The *Jaundice* by Celondine, Saffron, Centaurie. 5. The *Polipus*, by the roots of the ſmaller Celondine and polypodie. 6. *Lentigines*, *ſpecks or ſpots*, by the white and ſpeckled barke of the Birch-tree, and the Lichen which growes upon trees. 7. *Morphewes &c.* by Garlick, Cucko-pintle, Ariſarum, Arſmart, Lungwort &c. 8. *Wounds* by Through waxe, Millefolium.

Article, 3 *Of animal Medicaments.*

Animal Medicaments, are ſuch as are taken either from whole liveing Creatures, or ſome parts of them.

All Livewights are conſiderable in a five fold difference, for they are either *birds* or *Four-footed Beaſts*, or *Fiſhes*, or *Creeping things*, or *Bloodleſs-wights*.

I. Of birds, among *thoſe that live on Land* are. 1. *Carnivorous*, that live on Fleſh, The Eagle, the Vulture, the Hawk, the Kite, the Buzzard, the Cucko, the Falcon, Parrot, Crow, Jackdaw, the Chough, the Magpie, the Owle, the Batt, the Oſtrich. II. *Plant feeders*, and they are either. 1. *Scrapers in the duſt*, both wild, as the Peacock, Pheaſant, Heath-cock, Buſtard, Partrich, Quaile, Turkey-cock; and alſo tame, as the Cock and Hen. 2. *Or Scrapers and waſhers both*, as the Dove, Turtle, Pigeon, Sparrow. 3. *Or ſingers*, as the Linnet, Gold-finch, Thiſtle-finch, Thruſh, Larke. 4. *Berry-feeders*, as the Black-bird, Feldefare, &c. III. *Inſect-eaters*. 1. That *ſing not*, as the Pidanner, the Titmouſe, the Wood-pecker, the Wren, the ſwallow, the Lapwing, the Muskin, a diſhwaſher, a Redſtart, a Robin-redbreſt. 2. *That ſing*, as the Nightingal. *Of thoſe that live in the water*. I. *Broad-footed*, 1. *Fiſheaters*, the Pelicane, the Cormorant, the Sea-mew, the plungeon, the Seagul, the Swimmer. 2. *Graſs-eaters*, The Swan, the Gooſe, the Duck, the Moor-hen. II. *Cloven-footed* 1. *Fleſh-eaters*, the Storke, the Ibis, the Redwing, the Heron, the Porphyrie, the Kings fiſher, the Ispis. 2. *Inſect-eaters*, The Arquata, the Crex, the Totanus, Dab-chick, Scolopax, Tringa, Junco, Cinclus, vanellus, &c. 3. *Corn-eaters*, as the Crane.

II. *Fiſhes* are, I. *Seafiſh*, and they are 1. *either ſuch as keep in the deepes*, both *ſcaled*; as the ſtockfiſh, the Herring the Liparis: the Sea-bore, the Glaucus, the Horſe-tail, and the *Smooth*, as the Tunie, the Pompilus, the Amia, the Sword-fiſh, the Remora, the Conger, the Lamprey: alſo the *griſtly*, *long-*

long-shaped, as the Dogfish of *Aristotle*, the Galeus, the Catulus, the Sea-Weazel, the Star-Fish, the Blew-fish, the Thorn-back, the Sea-Ape, the Zigæna; and the *plain flat sort*, as the Torpedo, the Pastinaca, the Sea-Eagle, the Ray, the Sea-frog, the Sole, the Maid. II. Or such as *delight in stony places*, the scaled, as the Gilthead, the Thrush, the Peacock, the Lepras, the Black-bird, the Phycis, the Sea-Perch, the Channe, the Liver-fish, the Black-tail, the Crow-Fish, Adonis, Sciana, Glaucus, Anthias, Lumpfish, Sphyræna, the Needle-fish, and the Smith-fish. *Smooth*, as the Sea-Lark, and the Pholis. III. Such as haunt the shoar, and they scaly, not flat, as the Mullet, the Swallow, the Cockoo, the Kite, the Harp-fish, the Phagrus, the Red-fish, the Acarnan, Orphus, Dentex, Synagris, Chromis, Gold-fish, Sargus, Sparus, Mormyrus, Cantharus, Salpa, Scorpion, Blennus, Combefish, the Merlan, Anchoves, Atherina, Sarda, Menow, Smaris, and Ox-Eye. *Scaled and flat*, the Sole, the Place, the Flounder. *Smooth, not plain*, Sand Eels, Dragon, Little Dragon, the Stargazer, the Roughtaile, the Makarel, the Lizard, the Saurus, the Crow and the Kite. *Smooth and plain*, the Sparrow and the Rhombus. II. *Sea and River haunters*, and they, 1. *Scaly*, as the Salmon, the Pike, the Bream, the Alosa, Ziga of the River Albis, the Mullet, Goat fish, Sturgeon, and Galeus of Rhodes. 2. *Smooth*, as the Huso, Sperlan, Lamprey, Eele and the Owl fish. III. *River fish*, and they are, 1. *The Scaly sort*, the Trout, Thymallus, Shade, Barble, the Pollard, Dace, Gudgeon, Rough, Millerthumb, Phoxinus, &c. *Smooth*, Attilus of the River Poe, Antacæus of Poristhenes, Ishthyocolla, Glanis, River-Wezel, the Dig-fish, Phoxinus and Salmon. IV. *River and other fresh water fish*, as the great Perch, the Scrollus, Pungitus of Albertus; Alburnus of Ausonius, Epelanus, Pike, Carp, Tench, &c. V. *Pond-fish*, the Umbla, Carp, Pond-Trout, the Lavaret, of Geneva, the Saractus, &c.

III. *Four footed Beasts*, are, 1. *Whol-Hooft* as the Horse, the Ass, the Mule, Elephant, Zebra & Unicorn. 2. *Clovenfooted*, as the Elk, al kind of Oxen, the Camel, Panther-like Camel, Goat, Hart, Gulligut, Rangifer, Rhinoceros, and Hog. III. *Having divers toes*, which are either such *as bring forth Live-wights*, as the Panther, Tigre, Bear, Wolf, River-Horse, Fox, Ax, Marmoset, Baboon, Badger, Castor, Otter, Pole-Cat, Weazel, Mars, Genetha, Hare, Conny, Squirrel, Dormouse, Mouse, Mole, Hede-Hog, Urchin, Cat and Dog: or, *such as lay Eggs*, whether the Egs be covered with a skin or a shel: as the Frog, Lizard, Eft, Salamander, the spotted Neur, the Scincus, Cordilus, Chamelæon, Crocodile, and al kind Tortoises.

IV. *Creeping things*, or *Serpents*, both footless and footed, greater and lesser, as the Viper, Ammodits, Cerastes, Hemorrhoiis. Aspe, Dipsas, Scytale, Amphisbæna, Cæcylia, Cenchrus, Acontias, Dryinus, Elope, the snake of Esculapius, Water-Serpent, Boa, Sea-Serpent, Sea-Scolopendra, the Dragon, Basilisk, Dragon of Sythius, the Flying Dragon.

V. *Bloodless wights*, are distinguished in a five-fold manner. I. The *Soft*, as Polypus Sepia, Loligo, Sea-Hare. II. *Crustieas*, the Locust, Lobster, Squil, al kind of Crabs, and al crusty Shel-fish. III. *Shelly*, as Nautilus, Purpura, Murex, Buccinum, Turbants, Tops al Oisters, Pearl-fish, Lobstars, al kind of Snails, Sea-Combs, Mituli, Tellinæ, Pinna, Bissus, &c. IV. *Plant-animals*, of which see Authors. V. *Insects*, which are either 1. *Land*-Insects both footed, as the Bee, Wasp, Horner, Butter-fly, al kinds of Flies, the Cricker, Grashopper, Beetle, Pismire, Louse, Flea, Spider, Sow, Wood-louse; and *without feet*, as a worm, a Snaile. II. Or *Water-Insects*, as the Horse-Leech, Hippocampe, Sea-star, &c.

The *Parts* of Animals which are used in Physick, are either such as are common to al Sorts, or proper to every one. Of both which we shal treat elsewhere.

Article. IV. *Of Medicines taken from the Body of Man, or the little World.*

Microcosmick medicaments, are Medicines which are taken from the body of Man, to cure the infirmities of Mans body.

These medicaments are taken out of a *Live Man*, or from a *dead man*. From a *live man*, we have Hairs, Nails, Spittle, Ear-wax, Milk, Seed, Blood, Menstrual Blood, Secondines, Urine, Dung, Lice, Wormes, Stones of Bladder & Kidneyes, &c. From a *dead man*, Skin, Fat, Scul, Brain, Teeth, Bones Mummy; of which see *Daniel Beckerus* in his *Medicus Microcosmus*, and *Hartman*.

Chap.

Chap. 2. *Of Compound Natural Medicaments.*

Article, I. *Of the Medicinal Wels.*

AND ſo much ſhal ſuffice to have ſpoke of ſimple medicaments; the *Compound* follow, which are compounded either by *Nature*, or by *Art*. Of the former ſort are the *Aquæ Acidulæ*, or Phyſical and Medicinal Wels, and the *Natural Baths*.

The Aquæ acidulæ, *or medicinal Wels, are waters which from certain minerals being furniſhed with a ſharp taſt and other Virtues, doe cure diſeaſes, when rightly uſed.*

I. That ſame acid or ſharp taſt, from whence theſe waters have their name, is not in al of them alike ſtrong. Some are ſharp, others winy, others have ſcarce a ſenſible tartneſs. Somtimes alſo the ſelf ſame Wels are ſo ſharp as to cauſe a Diſentery, ſomtimes again they are without any taſt, otherwhiles very grateful to the pallate; which happens, either through the extremity of hot weather, which exhales their beſt parts; or by reaſon of rainy weather, whereby the waters are allaid with the rain; or through a cloudy, dark air with ſouth winds, which peircing into the bowels of the earth, and the veins of mineral waters, makes them clayiſh, troubled and thick; or through a peſtilential and general contagion of the Air; or by overflowing Rivers; or finally, which ſeldom happens, by reaſon of ſome Earthquake.

II. The *Minerals which are wont to Virtuate the waters*, are: Rufty okre, Iron okre, ſalt, Nitre, Vitriol, Coperas, Myſi, Sory, Iron ſtone, Chalcitis, Alum, Copper and Iron; eſpecially the four latter. Vitriol and Alum have for certain a remarkable ſharpneſs; that iron has the ſame quality, we ſee in *Vitriolum Martis*; and in the Wood of *Arden* there are many acid Fountains; in which wood there is plenty of Iron. And that Copper is not void of Acidity, is hereby manifeſt, in that there is Vitriol in it, and therefore wherever there is a Copper mine, there is alſo one kind of vitriol or another. You may know *what Minerals they are*, either *ſaving the water*, by conſidering the nature of the place whence it ſprings, taſt, ſmel, tangible qualities & contents thereof; or by *waſhing away the water*, by Sunning, Diſtilling, or Boyling. Now the waters are impregnated. 1. By an *halituous* or ſpirituous ſubſtance. Hence the water becomes light and thin, has no bubbles, is eaſily altered: being drunk, either it preſently ſtrikes up into the Noſe, or pierceth and cuts the Eies, or cauſes belchings, or fils the Head, or ſtirs up a kind of giddineis; nor does it ſtick long in the Hypochondria. 2. By a moiſt ſubſtance, when liquid mineral juices are thereby imbibed. 3. By a *ſolid* ſubſtance, which communicates its qualities & powers to waters, if there be a proportion between the waters, and what is fetcht off from the ſaid ſubſtance; if the waters have been long infected therewith, and other waters mingle not with them; finally, if the fragments of metrals be divided into exceeding ſmal parts. From the diverſity of Impregnation, there ariſes a *Diverſity* of *Acidity*. They are *ſharp*, wherein the Quantity & number of acid minerals is greater, & the ſharp quality more Intent. They are *Winy* in whom their Quantity is leſs, & Quality more remiſs. *Obſcurely acid*, in which there is very little of the foreſaid minerals, and the acid quality is languiſhing.

III. Touching the Virtue of theſe medicinal acid ſprings, obſerve. 1. That they cure diſeaſes by *Alteration*, *Corroboration*, *Evacuation* by ſtool, if the belly be looſe; by urine, if the party is inclined thereto; by ſweat if the skin be thin, compact, and the Habit of the Body looſe; by vomit if the ſtomach be cold, and the waters contain in them much ſulphur; yea by many waies at once as *Van Heer* ſhews, in his Treatiſe of the Spaw waters. 2. That thoſe waters have *more* of the mineral virtues in them, which wee find in their native place, where the minerals grow, or in their Channels; which have imbibed liquid juices; which have in them friable & crumbly ſtones and earth; which ſlide through a mineral matter, plentiful, ſoft, rare, porous, a long way, narrow, uneven, ful of turnings, headlong and with violence; thoſe *leſs*, which run through mines, only in one place, which ſcour from juices leſs concrete, ſtones and metrals; have drunk in little mineral Virtue, and run a ſhort, wide, even and ſtrait way. 2. That it may be foreſeen and prognoſticated, whether they wil be good or bad; the ſigns of their goodneſs are, the Natural Conſtitution of the four Seaſons of the year, the purity and healthineſs of the Air, Moderation of Rain, moderate blowing of wholſom winds, &c. of their badneſs the ſigns are contrary.

IV. They *are rightly uſed*. 1. *In reſpect of the Perſons*, if they are not given to decrepit perſons, Children, Women with child, conſumptive perſons, tympanied perſons, Ana-

sacra-dropsied, Dysenteric, Asthmatick, menstruate or Rein-exulcerated persons. 2. In *respect of the time*, if they are not durnk when they are altered, if not in the winter Season, unless upon extraordinary occasion and al things suitable; if they are given todrink when their signs argue them to be at the best, if cheifly in the spring, morning and evening, if in their place of springing, or not far off. 3. In respect *of the use of things foregoing*, if the body be prepared with a Lenitive, blood-letting, opening of the passages, driving away hurtful Humors. 4. In respect of the *Use of things circomstantial*, if they be so drunk, as to rise by little and little to the higheſt dose, and to stop there a while, and so to descend by little and little to the loweſt Dose; if the measure prescribed be divided into parts, if good diet be observed &c. 5. In regard of *things following their use*; if the Body be duly stirred. If diligent consideration be had, which way nature inclines; that is to say, whether they are like to work by stool, Urin, or Transpiration, or by many waies at once; if being retained, they may be brought away by convenient Clysters; if such Symptomes as usually occur, be provided against.

IV. How there are many acid Fountains, and medicinal springs in *Europe*, the chief of which are in *Germany*. 1. The *Spaw-Waters*, and they are four Wels in number, Geronster, Rouhont, Savinire, and Tunnelet. 2. Those of *Greisbach* at the Entrance of the Hercinian Forrest, which are seasoned with Iron, Vitriol, Christaline salt, Bitumen & Sulfur. 3. The *Petrine* Wel in *Alsatia*, a quarter of a mile distant from the former, & is qualified by some minerals. 4. *Antegast* Water, scituate at the Entrance of the Hircinian Wood, which is impregnated with Alum, Sulphure, and a little Vitriol. 5. *Ribelsave-water*, by the said Wood, in the County of Furstenberg, which has in it the spirituous subtilties of Iron, Nitre, vitriol, Chalcitis, Bitumen. 6. *Gebresveil Water* in the upper *Alsatia*, which is virtuated by Alom, Nitre, and Iron. 7. *Schwalback-Water*. 8. *Egran Wel*, in *Bohemia*. 9. *Nideraven* Spring near *Rottenburg*. 10. *Denachen Wel* in the Hercynian Forest. 11. The Federan Wel in *Rhetia*, which contains Alum and Coper, with a little Sulphur. 12. Wels of *Trevire*, which are three, one of which runs through a yellowish earth and Iron. I shal pass over the rest in silence. At this present while I am writing, many things, and they truly, miraculous, begin to be reported of the Wels of *Horn-Hause*, in lower *Saxnny*. Touching those acid waters see *Sebize*, *Baccius*, and others whom ye shal find in *Vander Linden de Scriptis Medicis*.

Article. II. *Of Bathes*

Bathes are hot waters, which bubble perpetually out of the Earth, are heated by the Subterranan fire, and having gained Vertue from divers Minerals, they cure Diseases, being fitly used.

I. They are *hot* either at their Head, or in their Chanels; either more or less.

II. They *leap and bubble out of the Earth*, because they have their Rise in an high Place, either in Mountains, or at the foot of a Mountain, as experience shews. They *bubble up perpetually, for the most part*, because the Earth is alwaies moist, and the subterraneal Heat does alwaies carry up vapors to the Concavities of Mountains, which where they cannot exhale, they are condensed, compressed, and turn into drops of water. Yet bathes are found, which rise & fal with the Ebbing and Flowing of the Sea. Nor do they alwaies flow out at one place: because the secret passages are either destroyed or stopped up.

III. The *Heat* of Bathes comes from the subterraneal fire, which is kindled by an indifferent hot exhalation, thin and enflamed, getting among the Sulphur and Bitumen, by which it is fed. Either the waters run through those hot subterranean places, or in the way they are joined to the flames and Heat; or they run so long above or by the Channels, til they grow hot; or whiles the Earth grows hot by underground fires, many vapors are from thence raised, which being at last, in some wide place turned to water, they do in one place or other seek an out-gate: or lastly, two or more metalline waters, being naturally cold to the touch, do in their converse grow hot through repugnancy of their Spirits; an example whereof we have in spirit of vitriol, and oyl, or salt of Tartar, also in *Aqua fortis* and Tartar, in Butter of Antimony and spirit of Nitre.

IV. *Subterranean matters which virtuate the Bathes*, are divers: partly minerals, partly mettals; which may be gathered from the several Bathes. Now how that comes to pass, and how the Materials in them may be known, I shewed before.

V. The *Diseases that are cured by them*, are also various, the Colick, Mother-fits, Stone, Barrenness,

Barrenneſs, Headache, &c. Some of which they cure directly, others by accident.

VI. *They are uſed to drinke*, for which intent, they are bad, which have ſome hurtful metalline property in them; alſo to bathe, Foment, in ſtoves, and by application of their clay: of al which ſee beſides *Fallopius*, *Horſtius and Rulandus* in Balnearium reſtauratum.

VII. The principle Bathes in *Italy* are, the Bathes of *Padua*, out of which the moſt famous bathes of Ebanus comes, made of a mixture of ſulphur, Alum, Nitre, Salt, and Chalk; the *Porritan* Baths, forty miles from Bononia; the *Lucan*, the cheiſe of which is that which is termed de Corſeno; *Sanie Mariæ in Bagno*, Situate in Romandiola, *Aqueæ* in the County of Piſa, *Petriolæ*, in the Dukedome of Sena, ful of alum; *Grotinæ*, in the Earldome of *Viterbium*, which conſiſt of iron & braſs; *Peruſinæ*, which participate of a little Sulphur and Aſphaltum; *Montis Catim*, which are all ſalt, &c. In *Germany* are commended the *Plumbariæ*, in Lorraigne, ſo called from the plentiful admixture of Lead; *Badenſes* in Switzerland, which conſiſt of much ſulfer and a little Alum; *Ferinæ* in the Dutchy of Wittemberge; *Cellenſes*, not far from the Martian wood; *Amenſes*, ſituate neare Rotenburge; *Embſenſes*, in the borders of the Lake of Conſtance; the *Carolinæ* in Bohemia; the *Wisbadenſes* ſituate not far from Mentz beyond the Rhene; *Gaſtainences* in Bawaria, which by vehement Aſtriction, do facilitate Conception; *Abudiacæ* above Reginoburgum, which ſmel like fried Eggs, &c. See of all *Rulandus* and *Weckerus*. Of the *Fountain* of *Bollen*, very uſeful both in drink and bathing, *Johannes Bauhinus* has written.

Chap. 3. *Of Compound artificial Medicaments in General.*

COmpound artifical medicaments are thoſe which are by art made up of the ſimple, into a certaine forme, being firſt prepared and qualified thereto.

There are touching them conſiderable. 1. The Neceſſity of the Compoſition. 2. The ſtructure. 3. Preparation. 4. Fermentation. 5. Diviſion.

I. The neceſſity of compounding Medicaments appeares from theſe reaſons following. 1. The preternatural Diſorders of the body, being many times compounded, cannot be cured by ſimple Medicaments. 2. The *Parts affected* in regard of their ſituation, temperament, conformation, dignity of their action, with the Conſtitution of the Patient, ſhew the need of compounding. 3. The *Quality* of the *medicament*, which is ſometime neceſſary to the Intention, but not proportioned to the diſeaſe; ſometimes is too weake, other whiles too ſtrong, or infected with an adverſe quality; al which requires compoſition.

II. *Touching the ſtructure*, obſerve. 1. That the Manner thereof requires, that we have a precognition of the ſort of Diſeaſe, and its magnitude, the condition of the ſick, and of the part affected; alſo the natures, faculties, degrees, and doſes of the ſimples. 2. That the Medicament is then beſt accomodated, when it is juſt equal to the diſeaſe, both in quality, the propriety whereof muſt be determined by the particular Nature of the diſeaſe, & in degree which is meaſured by the greatneſs of the diſeaſe & the Nature of the part affected. 3. That every compound Medicament conſiſts of five things. I. the *Baſis* which if conſidered in *general*. 1. It is the meaſure of the faculty, degree, and doſe of the compound. 2. It varies, according to the times of a diſeaſe, the urgent ſymptomes, nature of the part affected, conſtitution of the ſick, Quantity and quality of the other ingredients. 3. It takes its determinate Quantity from its own ſtrength, having alſo an Eye to the Nature of the Patient, the Magnitude, ſence and Dignity of the Part affected, the Celerity and tardity of the Action: if ſpecially conſidered, tis either *ſimple or compound*; *Simple*, which either is for one uſe only, though conſiſting of divers ingredients of the ſame faculty; or it conſiſts of one ſimple medicament which is either ſufficient, or remiſs, or intenſe, or furniſhed with ſome malignant or ſtrange Quality, as odor, taſt &c. *Compound*, which either ſerves for divers uſes, or is compounded of many ſimples, endued with a diverſe and contrary faculty; touching which obſerve, 1. That ſuch is uſed, when we have not that degree in a ſimple, which we deſire, but either more remiſs, or more intence. 2. That in its compoſition regard muſt be had of the firſt, ſecond, and third Qualities. 3. That either it conſiſts of divers ſimples of the ſame faculty and degree: & then it is of the ſame faculty & degree: or of the ſame faculty and a different degree; and then that which is remiſs abates that which is intenſe, and that which is intenſe enhances that which is remiſs, to the middle between both: or of contrary faculties & of the ſame degree, and then it is temperate: or of contrary faculties and different degrees, and then it is reduced to a medium between both:

both: al which ought so to be understood, that both the equality of Quantity be observed and fermentation excluded. II. With *correctives* which either spur up and quicken a dul lazy basis; or collect and augment the strength of a medicament, which is of thin substance; or xcite by extenuation the force thereof, being lodged in a thick matter; or restraine the violence thereof; or temper its malignity; or give it a pleasant tast or smel. They ought alwaies to be of a lesser Quantitity in respect of the Basis, and commonly the proportion of the Basis to the corrections, is judged to be triple: yet certain it is, that the Nature of the Basis and the Correctors, as also the Intent of the Physitian, do vary the same. If the malice of the basis is to be tempered, they are added in an equal Quantity. III. With *Directives* which render the medicaments proper for the part affected, open the waies and passages, prepare the humors, and concoct them, in respect of which a weake basis should be exceeding in an eight fold or octuple proportion, a strong one, should be equal or less. IV. With *conserves*, which fasten the directors and correctors to the basis, and give a fitting forme to the whol compound; and which ought neither to dul the basis with their over greate Quantity, nor to pervert the same by any strange quality.

III. *Preparation of Medicaments*, is either *common*, as boileing, Infusion, Roasting, burning, Calcination &c. Or *chimical* which, I. Is either *diacritical*, which dissolves the combination of the body, or by way of *purification*, to which belong *Drying* and *burning*; or by *Calcination*, which is performed by actual or potential fire, to which *Sublimation* belongs; or by way of *Resolution*, whereby a body is dissolved into divers and heterogeneous parts, and which is performed by *Extraction* and *Tincture*; or by *Putrefaction*, or finally by distillation. II. Or *Syneritical*, which conjoines things divers and separate into one body, whether it be done by *Precipitation*, or by *Reduction*, or by *Coagulation* and *Concretion*, or by *Digestion* and *Circulation*, or finially by *Cobebatino* or the repeated distilation of a liquor poured againe and again upon the matter from whence it has been distilled. III. Or *Immutatory*, which induces a new mode of substance, or quality into a thing, whether it be done by *Deliquium*, or by *Fixation* or *Volatisation*, or by Vitrification. Of these consult *Beguine*, *Sen[illegible]us* about the end of his book of the Consent and dissent of the Chymists and Galenists, and others.

IV. The *Fermentation* of Medicaments is nothing else but their union by mutual Alteration, by which meanes the old virtues of each of them do no longer remaine entire. It is cheifly to be regarded in Treacle and Methridate.

V. As for the *Division*, compound artificial Medicaments, are *Internal* or *External*. The former are *fluid*, *Solid*, or *middle consistence*. And the latter are divided into as many sorts.

Chap. 4. *Of Compound artificial Medicnies in Special.*

Article, 1. *Of Internal Medicaments.*

Point, 1. *Of internal fluid Medicaments.*

WE cal *those internal Medicaments, which are received by the mouth into the Body; and those we terme fluid which wil* run like water, *and they are.* 1. Decoctions. 2. Infusions. 3. Potions. 4. Medicinal Wines. 5. Medicinal Beer or Ale. 6. *Oxymel.* 7. *Barley water.* 8. *Medicinal Vinegar.* 9. *Distilled waters.* 10. *Syrup.* 11. *Juleps.* 12. *Emulsions.* 13. *Essences.* 14. *Spirits.* 15. *Tinctures.* 16 *Oiles.*

I. *Decoctions*, are made of vegetables, animals, & sometimes of minerals, if need be, cut, bruised or shaven, boiled in simple or prepared water, over a slow or quick fire, in a vessel open or shut, to the consumption of a third or fourth part of the liquor, the Decoction being afterwards strained, aromatized and clarified. The most noted decoctions are, *The greater aperitive* decoction of the Physitians of Augsburg, with their Decoction of *Rubarbe*, Decoction of *Maiden haire Fumitory*, *Carminative*, *Gallinæ consummatum of a Capon*, and the *Vulnerary* Decoction.

II. *Infusions* are made of Vegetables, or minnerals, purgers or vomitories, steeped a certaine time in some liquor, and afterwards strained forth. The proportion of the Ingredients to the liquor, is one and an half, or double.

III. *Potions* are made, when purgeing Electuaries, Extracts, pouders, roules &c. are mixed with liquors, without boileing.

IV.

IV. *Medicinal Wines*, are prepared, when new or clarified Wine is impregnated with the Virtues of simples, either suddenly by their oyles, spirits, and tinctures, or by long Infusion, either with or without sugar. The principal are wine of Barberies, Quinces, Pomgranates red Corants.

V. Medicinal beers and Physick Ales are made after the same manner.

VI. *Oxymel* is made, when vinegar is mingled with Honey, and plants are sometime steeped therein. The most famous are, the *Simple*, that of *Squils*; the *Helleborate Oxymel* of *Gesnerus*.

VII. *Barley water* is made, when barley is sufficiently boiled in water, alone, or with raisons, anis-seed, cinnamon; strained, and made tart with a drop or two of spirit of Vitriol, or of Sulphur.

VIII. *Medicinal Vinegar* is made, when simples or compounds are steeped in vinegar, or it is made of their juices. It is made of Plants. 1. Of their *Flowers* as vinegar of rosemary-flowers, of Marrygolds, of Gillyflowers, of Lavendar, of Poppie, of Red-poppie, of Roses, of elder flowers. 2. Of their *Leaves*, as of Mints, Rue, Scordium. 3. Of their *Fruits*, as of Citron peeles, Strauberries, Rasberries. 4. Of their *Roots* as vinegar of *Squils*. There are also compound vinegar, Antidotary, Preservatory, Bezoardick &c.

IX. *Distilled waters*, either by a Cucurbita in Balneo Mariæ of plants for the most part of cold Nature, whol, or beaten and juiced; or in Vesica, out of hot plants and such whose force is not easily drawn forth, and which must first ferment. They are made *either with wine*, as Wormwood water, Agrymony, Betonie, Carduus, Cinnamon, Liverwort, Lavendar, Lilly-convally, Baume, Penny-royal, Garden sage Veronica, *or without wine*, as are those of Sorrel, Wood-sorrel, &c. Of which see the Dispensatory of Augsburge. They are also made of Animals, as of Capons, Singing birds, Kidnies, Mans blood, dung of Beasts &c.

X. *Syrups*, are made of decoctions, Infusions clarrified juices; they are preserved with honey or sugar, & boiled to the consistence of honey almost, and are used both to alter and purge; seldom alone, frequently mingled with a double quantity of distilled waters. Those kept in the *Shops*, are, Syrup of wormwood, of juice of Citrons, of Sorrel, wood-Sorrel, Vinegar simple, of vinegar compound, of Maiden haire, of sowr grapes, of Marshmallows, of Orenges, of Mugwort, of Betony Simple, of Betony compound, of borrage, Byzantinus, so cald, simple and compound, of Maidenhaire simple, of Cichory simple, of Cinnamon, of Corals, of Citron peeles, of Quinces, of Endive simple, and compound, Of Eupatoruim, of Colts foot, of Fumitory Simple and compound, of Lycorize, of Pomgranates, of Jujubees, of Hyssop, of Lemons, of Hops, of Baum, of Mints, the Simple and compound, of Myrtiles, of waterlillies, of Poppies, of red poppies, of Cowslips, of Pionie, of Mouse-eare, of Apples Simple and Compound, of Purslain, of Horehound, of the five opening roots, of Roses Simple, of dried roses, of Rasberries, of Scabious, of stechados, of Comfrey, of Violets.

XI. *Juleps* are made of distilled waters, juyces, conserves, and sugar, either, without decoction or with decoction.

XII. *Emulsions* are made of seeds, nut kernels, perles, corals, hearts-horne, certaine fruites, being beaten with some liquor poured on, and then strained forth.

XIII. *Essences*, are made of the juice of green herbes pressed out with spirit of wine, and digested in Balneo Mariæ, where they receive their color separated by inclination, and with a little sugar reduced into the forme of a Syrupe.

XIIII. *Spirits* descend in the distillation both of Simple and compound waters, together with the waters themselves, and are afterwards separated from them, by a Cucurbita, vial, &c. But this must be understood of the more volatil sort. The fixer sort, are drawen out by a Retort, and a stronger fire, viz. With sand, or the bare fire. The cheife drawen from *Minerals* are, of Alum, of coral, Mercury, Sal ammoniack; Common Salt, Nitre, Lead, Ambar, Sulphur, Tartar, Vitriol; of *Vegetables*, are, of Wormwood, Wine-vinegar, Angelica, Anisseed, Carduus, Centorie, black-cherries, Scurvy-grass, Quinces, Elder-berries, Fenel, Strawberries, Guajacum, Juniper-berries, Lilly-convally, Baume, Rosemary, Roses, Sage, Danewort, Linden-flowers, Fluellen, wine &c.

XV. *Tinctures* are made of dry Plants, for the most part hot beaten & steeped in some liquor, which is called the Menstruum, as spirit of Wine, May-dew, or some other, set in an hot place, and the vessel shut, so longe as that the liquor wil receive no more colour; and then they are filtred through a Paper, or purified

purified by digestion. The most renowned, are. 1. *Of Minerals*, Of the Sun, Moon, Mars, Saturne, Antimony, Sulphur, Vitriol Smaragd. 2. *Of Vigitables*, and cheifly of flowers, of Winter-cherries, Safron, Black-cherries, Strawberries, St. Johns wort, Peony, Red poppie, Roses, Violets, Elder-berries, Dwarfe elder &c.

XVI. *Oyles*, are drawen out of gummie & rosiny substances, either descend with waters in distillation, or are separated from them, either by a separatory, or by thick linnen threds, or by brown or otherwise sinking paper; in some materials, they sink to the bottom, the more remarkable are, oile of wormwood, Dil, Angelica. Of which see beneath in the first point of the third article.

Point, 2. *Of internal solid Medicaments.*

INternal solid Medicaments are. 1 *Pouders.* 2. *Salts.* 3. *Saffrons.* 4. *Flowers.* 5. *Precipitates.* 6. *Vitra, Glass.* 7. *Feculæ dregs.* 8. *Confects.* 9. *Roules.* 10. *Lozenges or bits.* 11. *Trochiscks. And* 12. *Pils.*

I. *Pouders* consist of one or more medicaments beaten together. They are either *Subtile*, which if they consist of meer spices, and sugar, their proper and peculiar name is, *Tragemata* or *Tragee*, dredge pouders; to which *Sales Sacerdotales*, or the Parsons Salts are to be referred, which are used with meat; or *grosser*, and are termed *Tragea grossæ*, and *species incisæ*, and are made either of simples, and they either confected over with sugar, or not sugared; or of compounds, viz. the aromatick roules or Lozenges of the shops. We use them both for Evacuation and Alteration. Among the *Purging* sort are, Pulvis sennæ preparatæ, Tartari Chrystalini solutivis, de Tribus, Cholagogus simplex, Cholagogus insucoatus. Earle of Warwicks pouder or Pulvis Cornachinus. Of the *Electuary* of Benedicta Laxativa; Elescoph, Hiera picra, Diaphenicon, de Succe Rosarum, Diaturbith cum Rhabarbaro. Among the *Alterers* are, the species or pouder of Ariomatica Caryophyllata, Dianthos, Diacalaminthes, Diacinnamomum, Diagalanga, De Gemmis calida and frigida, de Hyacintho, Diaireos, Latificans, Liberans, Diamargaritum calidum, frigidum, Diamoschu dulcis, Diatrion pipereon, Diarrhodon Abbatis, Rosata novella, Diatrion Santalon, Diatragacanthum frigidum, Diaxylo-Aloes, &c. Hitherto appertain *Alexipharmical* powders or Antidotes, such as *Pulvis Saxonicus*, *Cæsaris*, Gascoignes pouder, Viper Pouder, *Countess of Kents Pouder.* Of these and other like Medicaments see the *London* Dispensatory in English.

II. There is in al things, very near, a twofold salt, *Volatile*, by some called Essential, which sustains not the force of fire, but flies away, and is dissipated in calcination: and *fixed*, which is prepared of the ashes of plants and woods, of which a lie is made, and that is boiled, til al the water exhale, and then the salt remains. 'Tis *purified*, either by frequent solution and filtration, and recoagulation: or if it be dissolved *per Deliquium* in a moist place, let it be filtred, and again coagulated. The *Principal are*, Salt of Wormwood, of Mugwort, of Crabs, of Carduus, Centaury, Chervil, Harts-horn Volatile, of Mans scul Volatil, Eyebright, Bean-shels and Ham, of Strawberry Leaves, Fumitory, Guajacum volatile, Ground Ivy, Juniper berries, Juniper wood, Marjeram, Feaverfew, Bawm, Nitre, Onone or rest-harrow, Arsmart, Pimpernel, Rue, Sage, Mans-blood, Scordium, of amber Volatil, of Tamarisk, of Tartar, of vitriol vomitive, of Urine, Nettles, Zedoary, of Jove, Saturn, Corals, Pearls, &c.

III. *Saffrons* are subtile pouders, or tinctures, reduced into the form of pouder, of a Saffron color, the principal are, *Crocus Metallorum*, which is nothing else but Antimony calcined with Nitre, and reduced into a pouder of a saffron-color, of thin, to which is the *Sulphur Auratum of Antimony*, and of *Mars*, which is divers waies prepared, of which see the Chymists. *Terra Vitrioli* is not unconveniently referred to the Head.

IV. *Flowers* are by Chymists so called, being for the most part the more subtil particles of a body, separated from the grosser substance by Sublimation. The most vulgar are, *flower* of Brimstone, Antimony, Benzoin, to which pertain al other *sublimates*, the chief of which are *Mercurius sublimatus simplex, and Sublimatus dulcis*, *Arcanum Corrallinum*, *&c.*

V. The name of *Precipitate* is chiefly attributed to *Mercury*; which having been dissolved in *Aqua fortis* is separated from the Solvent water and settles, and receives the name of *Mercurius Præcipitatus* or Turbith Mineral; to which in its præcipitation, if a little gold

gold be added, 'tis called *Aurum Vitæ*. Hereto pertains *Bezoardicum Minerale*, *Mercurius Vitæ*, and ſome other things.

VI. Glaſs is made of the Calces of things, if the Aſhes or Calx be melted with an exceeding ſtrong fire, and Borax be ſometimes added to haſten the Melting, or other melting pouders; the matter being melted, is poured upon an hot baſon, or ſome plate. Thus is the Glaſs of Antimony (or ſtibium commonly called) and the amber of Antimony made of thoſe Cups, Rings, and purging moneys may be made. Touching the *Vitrum Auratum Antimonii*, and the *Regulus Antimonii* ſee the Chymiſts, eſpecially *Schroderus* in his *Pharmacopæa*

VII. *Fecula* is a mealy pouder like ſtarch, and is made of the juice of certain roots preſſed forth, or extracted with liquor, which when placed in a cold place, the fecula ſettles of its own accord, which, the water ſwimming on the top being poured off, is dried in the ſhadow. The moſt uſual are Fecula Bryoniæ, Ari, Pæoniæ, Iridis, Serpentariæ, white Lillies, Squils.

VIII. *Confects* are things preſerved dry, invented for to gratifie the taſt; and they are made both to alter and evacuate. The *chief* are, of ſweet almonds, of Aniſeed laxative, of Calamus Aromaticus, Cardamoms, Carway, July-flowers, Cichory, Cinnamon, Coriander, Muſk Plums, Cubebs, Fennel, Lavender Flowers, Pimpernel Roots, Pine Kernels, Zedoary, Ginger. Hitherto belong Candied things, which are cruſted with Sugarcandy, as Acorus, Orenge peels, July-Flowers, Cinnamon, Citron Peels, Nutmegs, Muſcatel-Pears, &c.

IX. *Rouls* ſo called from their ſhape, for they are either altering or purging, and are prepared with Sugar, whoſe vulgar proportion is octuple in alteratives, quadruple in Purgatives, more in ſtillatitious oyls. The *principle* are, *Rotulæ de Berberis*, *Manus Chriſti* ſimple and perled, pectoral rouls. Of Sulphur, &c.

X. *Morſuli*, morſels, are made almoſt in in the ſame maner. They are either *Alteratives* as the Bezoardic, Cephalic, Cephalico-ſtomachic, of the juice and peles of Citrons, Pectoral Sugars, Roſatum Tabulatum, &c. Or *Purging*, as Diacarthami, Diaphenicon, of Mechoacan, of Jalap, of *Diaturbith cum rhabarbaro*, *&c.* or *Nutritive*, which are made of the pulp of Capons, Partridges, Cockſtones, Fleſh of Crabs and Tortoiſes, &c. To morſels appertain. 1. *Pandeleon* ſo called, the Matter and end whereof agrees with Electuaries or Lick-pots, and the form with Lozenges; ſave that the Pandaleon is ſhapeleſs. 2. *Turiones*, as if you would ſay, *torrones a torrendo* from toaſting, which are made of ſweet almonds, Nut Kernels, Pine Kernels, beaten or roaſted, and made up with honey. 3. *Confections reſtorative*, as Diamygdalraum, Pineatum, Teſtudinatum, Diet bread, Naples biſket, &c.

XI. *Trochiſci*, or *Parſilli*, are ſolid cohering medicaments, conſiſting of convenient ingredients made up with Liquor, in the ſhape of Lupines, or little flat bowls; invented to this end, that medicaments being poudred, might be in this form the better preſerved againſt the Injuries of the Air. They are prepared of al kind of medicaments, not only pouders and Species, but with addition of thickned juices, Conſervs, Extracts, or the like Confections, the doſe to the Pouders in being a proportion ſomwhat leſs then quadruple, &c. They are either *alterative*, & Wormwood, of Alipta, Moſchata, with Amber of Moſch, or without, *Bechici albi*, *Nigri*, *Rubri*, *de Berberis*, *de Camphera*, *de Capparibus*, *de Caraba*, *de Carallio*, *Cypheos* of Democrates, *de Lacca*, *de Myrrha*, *de Spodio*, *de Terra ſigilata*, *de Vipera*, *&c.* or Purgers of Agaric, of Coloquintida, &c.

XII. *Pils*, are medicaments reduced into the form of little bals, that they may be ſwollowed whole, and the unſavorineſs of the ingredients, not diſcerned by the Taſt. They are made of pouders extracted out of the maſs of uſual pils, the ſimples being made up with ſome liquor. They are either *Alterers* of Bdellium, Bechicæ, or for the Cough, of Caſtoreum, of Cynogloſſa, Narcotick pils of platerus, &c. or *Purgers*, of Agarick, Agregative, Alephangine, of Aloes roſata, of Amoniacum Arthriticæ, Aſſajeret, Aureæ, de Colocynthide, de Hermodactilis, Maſtichinæ, Panchimagogæ, &c. They are alſo diſtinguiſhed into *Hypoglotides* and *Narcoticæ*.

Point III. *Of internal medicaments of a middle Conſiſtence.*

Internal Medicaments of a middle conſiſtence between fluid and ſolid, contain under them. 1. *Extracts.* 2. *Roſins.* 3. *Conſervs.* 4. *Conſerves.* 5. *Quiddennies.* 6. *Electuaries.* 7. *Lick-pots.* 8. *Soupes.* and 9. *Boles.*

An *Extract* is drawn as a tincture, and is reduced

reduced to the Consistence of Honey, Pils, or pouder. The most *usual* are, of wormwood, of Acorus, of Lignum aloes, of Angelica roots, of round Birthwort, of Carduus, of Gilloflowers, of Castoreum, of Centory, of Celondine, of Safron, of Cubebs, of Dictamus, of Enula, of Galingal, of Gentian, of Guajacum, of Masterwort roots, of Baume, of Mint, of Mace, Marjoram, of Broad dock, of Pæonie, of Rue, of Savine, of Satyrium roots, of Scabious, of Scordium, of Comfrey, of Tormentil, of Valerian, of Zedoary.

II. *Rosin* is drawn out of Gummy materials with Rosewater and spirit of wine, separate from the feces by inclination, precipitated and dryed with a gentle heat.

III. *Conserve* is made of flowers, somtimes of herbes, and soft roots bruised, and preserved with a double quantity of sugar. The most usual are, of the *tops* of Romanwormwood, Carduus, Eye-bright, Fumitory, Marjorom, Penyroial, Veronica. Of the *Leaves*, of Sorrel, Wood-sorrel, Scurvy-grass, Mints, Purslane; of *flowers* of Acacia, Betonie, Borrage, Bugloss, Marygolds, Cichory, Broom, White-lillies, Lavendar, Lilly-convally, Mallowes, Baume, Mints, Water-lillies, red Poppie, Peach-flowers, Primrose, Prunella, white and Red-roses, Sage, Elder, Linden, Savory, Colts-foot.

IV. *Preserves* are made of roots, barkes, Fruits, or harder materials, steeped in water or boiled; or of softer, preserved in sugar or honey, to last the better and to be more grateful to the Palate. The more usual are these following. Of the *roots* of Calamus aromaticus, Borrage, Cichory, Comfry, Elecompane, Eryngoes, Pimpernel, Rhubarbe, Satyrium, Scorzonera, Zedoarie, Ginger, both that of China, and the common sort. Of the *flowers* of Orenges, Citrons; the *fruits* of Orenges, Barberies, Cherries, Citrons, either whole, cut in slices, or dried; or of the pulpe of Quinces, bramble berries or Hips, Apricocks, Medlars, Myrabolans bellirican, Chebulan, Citrine, and Emblican; of Wallnuts, and Indian nuts, of Peaches, black-peper in the branch, Sloes, Prunes, Damsins &c. Of *Peeles* of Aurenges, Citrons. And stalkes of Spanish Lettuce.

V. Rob or Quiddiny is the thickned juice of fruits, sometimes of flowers, either with expression, or without expression, boiled and with a like quantity or somewhat more of sugar added. The *cheife* are, of Barberies, Cherries, Hips, red-corants, Elder berries. Hitherto belong *thickned juyces*, of Wormwood, Acacia, Agrimony, Aloes, Carduus, kermes berries, Elder berries, centaury, Quinces, Elecampane, Fumitory, Lycorize, Hedge-Hyssop, St. Johns wort, Henbane, Hypocistis, our blew Orice, Licorize, Mercury, Myrtils of germanie, Nicotiana or Tobacco, Opium, Plantane, Red-Roses, scrophularia, and Solatrum. *Ad hæreunto* Mel Ebulinum, Sambucinum, Juniperinum, and Passulatum.

V. *An Electuary* is made of Conserves, Spices, Roules, Trochischs, a proportion of juice or syrup being added. The *Cheif are*, Venice Treacle, Mithridate, Alkermes, Confectio Anacardina, Aurea Alexandrina, Electuary of Bay-berries, *de Scoria ferri*, *de Ovo*, *Philonium Mesuæ*, *Persicum*, *Romanum*, *Dioscoridum*, *Tryphera magna*, so named because they give a good color to the whole body, and make the breath sweet, and are made up of curious ingredients.

VI. *Eclegma*, or *Lohoch*, or *Lick-pot*, of pouders, species, conserves, juices, mixed with some liquor or syrupe, used against infirmities of the Lungs and Chest. The most usual are, *de Scilla compositum*, *de Caulibus*, *de Farfara*, *de Papavere*, *Passulatum*, of the Pine kernels, of Purslane, of Fox-lungs, Lohoch-sanum and expertum, and succo Scillæ &c.

VII. *Saponea*, is a Lick-pot made of almonds blanched and beaten, and with sugar dissolved in a convenient water boiled to the consistence of Honey, starch and rosewater being added towards the end.

VIII. *Bolus*, a morsel, is made of Electuaries, pulpes, conserves, spices, pouders with a little syrupe, made into the shape of a little bal; given to purge, vomit, alter, or some other purpose.

Article, 2. *Of external Medicaments.*

Point, 1. *Of external fluid Medicaments.*

And so much for compound internal Medicaments; the *external* follow; which are either *fluid*, or *solid or* of a *middling nature*, or indifferent. The *fluid* are. 1. *Clysters*. 2. *Gargles*. 3. *Mouth-washers*. 4. *Oiles*. 5. *Epithemes*. 6. *Pumpings*. 7. *Lotions*.

I. *Clisters*, are medicaments, which by a convenient Instrument, are cast through the fundament into the Guts. They are made of Roots,

Roots, Barkes, Leaves, Flowers, Fruites, boyled in water and ſtrained, ſome other things being added, which may ſerve the Intent of the Phyſitian. Their uſe is to looſen the belly, to clenſe, diſpel wind, to bind, to ſodder, to allay the paines, of the Guts and kidneyes.

II. *Diaclyſmata* or *Mouthwaſhings*, are medicaments, which are kept in the mouth, and are by the tongue moved up and down without ſwallowing. They are cheifly provided for paines of the Teeth and Diſeaſes of the Jawes.

III. *Gargariſmes* are medicaments, with which the throat is waſhed without ſwallowing down, the humor being forced up and down by the breath. They are made of diſtilled waters, or convenient decoctions, neither unpleaſing in taſt nor ſmel, nor haveing any venemouſneſs in them, in which ſome ſyrupe or Quiddinie is diſſolved. We uſe them in repelling, diſcuſſing, ripening, abſterſion, conſolidation.

IV. *Oiles* are made either by *diſtillation*, as aforeſaid: or by *expreſſion* of the oleaginous juice, when the fruits and contuſed ſeeds grow warme with the vapour of hot water, and being put in a bag are ſqueezed in a Preſs: or by *infuſion*, either when the ſimple medicaments with ſimple water, or diſtilled water, wine or other convenient liquor, are boiled in common oile, til the Humor be conſumed: or when the ſame ſimples are macerated in a gentle Heat, or in the Sunn; or when dryed plants, are with oile digeſted in balneo Mariæ, the oile being afterwards preſſed out and clarified. The *Oiles preſſed out* are theſe; Oile of bitter Almonds and of ſweet, of Hazel-nuts, of Hemp ſeed, of Cherry kernels, of Citron ſeeds, of Rocket, of Henbane, of Walnuts, of Baies, of Mace, of Nigella, of Nutmeg, of Ripe and unripe Olives, of Eggs, de palma, of Poppie, of Peach kernels, of Pine kernels, Piſtachios, Rape, Ricinus, ſeſamus, Acorns. *Oiles* by *infuſion* in the *Sun*, and ſimple are theſe, Oile of Wormwood, Southernwood, Dil, Chamemel, Cheiri, Quinces, Elecampane, Euphorbium, Pilmires, Ground-ivy, Jaſemine, Orice, Priver, of Lillies, Lilly convally, wormes, Maſtich, Mint, Melilote, Myrtils, Nard, white lilly, Populeum, Frogs, Roſes, Rue, Elder, Scorpions, Storax, Mullen, Violets. *Boiled Oiles*, compound, are theſe followiug: of Capers, Caſtoreum, Coſtus, St. Johns wort, Lilies, Marjorum, Mandrake, Nard, Poppy, Pepers, Foxes. *The ſtillatitious oiles*, moſt in uſe are theſe. Of Wormwood, of dil, of Angelica, of Anis, Orenge-peeles, May-butter, Benzoin, Calamus aromaticus, Camphire, Cardamoms, Caraway, Cloves, Waxe rectified, Chamæmel, Chervil, Cinnamon, Bark of Citron, Cumin, Cubebs, Euphorbium, Fenel, Galbanum, Guajacum, Hyſſop, Juniper berries, juniper wood, of Tiles philoſophick, of Mace, Marjerom, Maſtich, Baum, Mints, Myrrhe rectified. Of Nutmeg, of Origanum, of Peper, of Peny-roial, Roſemary, of Roſes, of Sage, of Savine, Wildbettony, Spike, White amber, yellow Amber, Tartar, Terpentine, Zedoarie.

V. *Epithemata*, *Epithemes* are applied to the external parts of the Body, and are made of diſtilled waters, juices, infuſions, ſuitable to the part and diſeaſe. To them belong *Oxyrrhodina*. *Roſe-vinegred Epithemes*, which are peculialy applied to the forhead, with frequent reiterations, to coole and repel. They were anciently made of Oile of Roſes and vinegar; now a daies diſtilled Oiles and waters, as alſo juices and pouders are ſometimes added.

VI. *Pumping or pouring*, is when common water, bathe water, decoctions, Milke, Oile &c. are pumped or poured down upon ſome part, or ſuffered to dril upon the ſame out of a cock or ſpout of a ſiſterne or Ewer. They are applied cheifly to three places, viz. the future of the Crown of the Head, the Beginning of the ſpinal Marrow, and to warme the ſtomach.

VII. *Lotions* are either of the whole Bodie, and are called Baths, or of the parts, Head, Hands, Feet, Belly &c. They are made of the ſame things as fomentations are made of.

Point, 2. *Of external ſolid Medicaments.*

External ſolid Medicaments are: 1. *Suppoſitories*. 2. *Peſſeries*. 3. *Plaiſters*, 4. *Cerates*. 5. *Cauſtick's*.

Suppoſitories, are ſollid Medicaments, which are put up into the fundament, being formed round like a wax candel, four or five fingers breadth longe. They are made of Honey boiled ſo thick, that it may be wrought and faſhioned with a mans fingers, into which other requiſite materials are ſprinkled. They are uſed to looſen the Belly, the patient being weak; to clenſe and conſolidate an ulcer in the *Rectum Inteſtinum*, to ſtop paine, draw back humors flowing upwards, and kil worms in the Guts.

II. *Pessaries* are made of rowzed wool or cotton, wreathed into the forme of a mans finger, impregnated with some juice or Liquor, either alone or with pouders commixed: or of beaten medicaments made up in a mortar with convenient liquors, as Fat, Oile, waxe, Ladanum, Galbanum, Honey, and wrought into the forme of a pessarie: or of green herbes a little bruised, and bound with a string into the shape of a pessarie. Or of pouders, received in thin wool or Cotton, and bound with a thrid into the forme of a Pessarie. Or of pouders received in thin wool or Cotton, and put into a round bag made of thin cloath, which may be included in a round silver Instrument with holes on the sides, made for that purpose.

III. *Plaisters* properly so called, are Medicaments, which being spred upon linnen Cloathes or leather, do stick fast to the Skin of the body, & are the same with cerotes in respect of the matter, save that metals and mineralls, and litterage for the most part, are added, which give it solidity of substance. Al which are boiled to a just consistence, and being cooled are made up into rowles. Sometimes before the Mass is quite cold Cerecloathes of old linnen are dipped in, and taken forth. *Emplasters improperly so called*, which are of a middle consistence between a plaster and a Cataplasme, are made without waxe, pitch, and those glewish materials, or fire; with honey, mucilages, and a certaine clammy creame, or a little wax dissolved in Oile. The cheife Plasters are, Album coctum, Apostolicum, Arthriticum, Basilicum, and Lapide Calaminari, Diachylon simplex, Magnum, Parbum, cum Gummi, Citrinum, de Cruce paris, de Baccis Lauri, de Meliloto, de Minio, Mundificativum, Nervinum, Oxycroceum, Diaphenicum calidum, frigidum, de ranis Vigonis, de Rhabardaro, Sparadrap, Stichticum, Paracelsi, Terrapharmacum, Vesicatorium.

IV. *Cerotes* which consist much of wax, and are not of so hard a consistence as Plasters, are made either of wax, Oile, and Rosin only, or of the same pouders being added besides, so that, the proportion of oiles to pouders is octuple, to wax triple or sextuple, to rosin twelve times as much. Besides al these, fats and gums are added, juices, roots, fruits, or seeds, which must first be boiled, and the colature is afterwards to be boiled with oile, til the watrish liquor be consumed. The *Principle* are, Cerot of Betonie, Diacalciteos, Diapalma, Infrigidans *Galeni*, *Oesypi*, Diapixer, *pro Hermosis*, *Santalinum*, *Sparadrappum*, *Vigonis Stomachale*.

V. *Cauteria*, Cauteries, are medicaments which have a power to burne the Body, and to raise a crust, and they are either *Actual*, which consist of red hot metals, of which in our discourse of Chirurgerie; or *potential*, which are made by burning medicaments, and composed of Lie which soap is made of, boiled into a consistence of Salt, or of a stone almost, which is vulgarly called *Lapis corrosivus*. An Ulcer made by a Caustick or Cautery, is commonly called *a fontanel or issue*.

Point, 3. *Of external medicaments of a middle consistence.*

External medicaments of a middle Consistence are. 1. *Balsams.* 2. *Liniments.* 3. *Unguents.* 4. *Cataplasmes.*

I. *Balsams* are made of oiles incorporated with white wax deparated, or oile of Nutmegs by expression, or the marrow of a Calfe washed, or manna clarified. Also the extracts of things whose balsom is desired, may be mingled with them. The *most usual* are these; of Angelica, of Anise, An Apoplectick Balsom, with musk and civet, of Orenges, of Cloves, of Cinnamon, of Citrons, Cubebes, of Lavendar, of Mace, of Marjorom, of Mints, of Nutmegs, of Rose-mary, of Roses, of Rue, of Amber, Zedoary. There are also *distilled Balsomes* which are nothing else but distilled spirits (and a potion of oile) proceeding from rosins, gums, spices, and such like drawn out with spirit of wine. The most usual are, Balsamus vitæ, Nervinus, Antiarthriticus, &c.

II. *Liniments*, are Medicaments of a middle consistency between an oile and an unguent, and are made by adding to Oiles, Butter, Fat, Suet, Marrow, juices, pouders, rosins, teares of trees; in this proportion for the most part, that to one ounce of oiles, two drams or three of fats be added, one dram of spices; sometimes though seldom, a dram of wax is added. Al are mixed either with fire, or without fire, or boiling; sometimes they are set over the fire to melt the gums and fats; and sometimes they are a little boiled to consume and wast away the juices added.

III. *Ointments*, differ from Liniments by their thicker consistence, and are made either without fire, or with fire, of fats, oiles, gums, pouders, usual ointments of herbes, roots, seeds,

ſeeds; macerated in water, wine, juices, oiles, and boiled to the Conſumption of the liquor. The *moſt uſual are* of Agrippa, Ægyptiacum, Alabaſtrinum, Album camphoratum, Altheæ ſimplex compoſitum, Apoſtolicum, Arthanitæ, Aureum, Citrinum, Comitiſſæ, *Infrigidans Galeni*, Martiatum magnum, de Nicotiana, Turiæ, Pectorale, Pomatum, Populeon, Potabile, Reſumptivum, Roſatum, Rubeum Camphoratum; ad Scabiem, Emulatum cum, and ſine Mercurio, Apertivum. Of al which ſee the London Diſpenſatory in Engliſh.

IV. *Cataplaſmes* or *Pulteſſes*, are Medicaments made up in the form of watergrewel or haſty-pudding. They are made, either, *without fire*, which they terme crude, when green herbes bruiſed are reduced into a Pultis, or dried and poudered. They are mixed with a double or triple Quantity of ſome convenient Oile or Liquor: either *over the fire* or with boiling, when either the Plants broken or bruiſed, boiled til they are ſoft, and drawn through a ſearſe; to which mucilages, meales, oiles, are added, or the Plants are ſoon after boiled in Oile. Hitherto may be refered. 1. *Dropax*, or *Pitching*, which is made of pitch melted with oile and other things, that it may ſtick more ſtrongly to the skin. 2. *Sinapiſmus*, or a Cataplaſme, which is made of Muſtard, and other things of like biteing nature. If it be of the milder ſort, tis called *Phænigmus*, becauſe it makes the skin looke red, if ſtrong, tis termed a Veſicatorie; and is made of veſicatories.

Point, 4. *Of external Indifferent Medicaments.*

I *cal thoſe indifferent medicaments which are ſometimes prepared liquid, ſometimes ſolid, ſometimes of a middle conſiſtence: and they are.* 1. *Apophlegmatiſmes.* 2. *Dentifrices.* 3. *Noſe-remedies.* 4. *Sneezers.* 5. *Perfumes or pomanders.* 6. *Soapes,* 7. *Burning fumers.* 8. *Eye-ſalves.*

I. *Apophlegmatiſmes*, are medicaments which being held in the mouth, draw flegm out of the Head and neighbouring parts: They are prepared many times after the ſame manner that Gargariſmes are: ſometimes medicaments are beaten, and with ſome convenient liquor brought into the forme of an electuary: ſometimes whole ſimples are only held in the mouth and chewed: ſometimes being beaten they are with honey or wax reduced into trochisks: and ſometimes they are ſhaped into a nodule.

II. *Dentifrices*, *Teeth-ſcrubbers*, are prepared to clenſe, whiten, and faſten the Teeth to contract the looſened gums; either fluid, or in forme of a Liniment, Pouder, Trochiſchs.

III. *Errhina*, Noſe-Medicines, are put into the Noſtrils, either in a moiſt forme, which are either powred in, or anointed on; or in a dry form, and then either they are figured out of convenient roots or ſtalks, into a pyramidal forme, and are ſteeped in water and ſo uſed; or the pouder of ſimples are blown into the noſtrils; or rents of wool or cloath are wet with ſome juice or water, and being ſprinkled with pouders are thruſt up into the Noſtrils; or pouders are with mucilage, Gum, Terpentine, Oile or Wax, formed into Pyramidal pencils.

IV. *Ptarmica*, *ſneezers*, differ not much from the former, and procure ſneezings.

V. *Odours* are made of ſuch things as have a ſweet ſmell, and are either fluid, or are made up in the forme of an Apple, Pouder, Liniment.

VI. *Soapes* are made of Caſtle-ſoape ſhaven, and about a ſixt or eight part of ſome convenient pouders mixt therewith, and with ſome liquor made into a maſs of which waſhbals are framed.

VII. *Suffitus*, *Perfumes to burn*, belong to Odors, and are prepared in form of Pouder, Trochisks and Pyramides.

VIII. *Eye-ſalves* are uſed externally to the Eyes, and are prepared either drie, being beaten very ſmal in a mortar; or moiſt, which either are diſtilled into the Eyes in form of a Liquor, or anointed upon them in form of a ſalve; or Vaporous, which being boiled in water, the vapour exhaling from them is received into the Eyes, the patients Head being to that end covered with a cloath of Linnen. But touching al theſe conſult the *Medico-chymical Pharmacopeia of Dr. John Schroder*, which I commend to ſtudents of Phyſick above al others.

Chap. 5. *Of Medicaments denominated from their Facultis.*

Article, I. *Of altering Medicaments.*

Point, 1. *Of hot Medicaments.*

So much may ſuffice to have ſpoken of Medicaments ſimple and compound. Medica-

ments denominated from their faculties, are either *Alterres*, or *Causers of Motion*, or *Producers of somewhat*, or *takers away of somewhat*, or *Resisters of Poison*.

Altering Medicaments are many waies differenced: for they are Temperate, Hot, Cold, Moist, Dry, Digesting, Emollient, Hardning, Relaxing, Rarifieing, Condensing, Shutting, Opening mouths of veins, Attenuaters, Openers, Incrassaters, Emplasticks, Deobstructers, Absterssives, Painasswagers, and Narcoticks.

I. *Temperate are such as exceed not in the first Qualities*, as are Maiden haire, Asparagus, Lycorise, Pine kernels, Jujubes, figs, Sebestens, Raisons, Dates, Gum Elemi, Gum dragant, Veale-suet, Goat-suet, Hogsgrease, sweet oile.

II. Things are *hot*, in the first, second, third, or fourth degree.

I. Things hot in the first degree are such as do scarce sensibly heat the Body, as, The *Roots* of Marsh mallowes, Beares-Breech, Betes, Bugloss, Lycorize, Satyrium. The *leaves* of Wormwood, which some count hot in the second degree, of Marshmallowes, Borrage, Bugloss, Betes, Beares-Breech, Colewort, Chamomel, Dodder, Liverwort or Agrimony, Fumitory, Toad-flax, Melilote, Malabathrium, Spicknard, Scolopendrium, Comfres, Coltsfoot. The *Flowers* of Borrage, of Bugloss, of Betony, of Oxe eye, Melilote, Chamomel, Black poplar, Stœchados, Groundsel. *Seeds* of Coriander, Fœnigreeke, Line, Gromwel, Sesamus, Rice. *Fruits*, Sweet almonds, Chastnuts, Jujubes, Cypress nuts, Green wallnuts, ripe Grapes, ripe Mulberries, Sweet fragrant Apples. *Barks*, of Mace, Guajacum, Tamarisk. *Liquors, juices and Gums*, Sugar, Bdellium, Ladanum, Gum Hedera. *Suet* of a Kid, a Doe, an hart, new fresh butter.

II. *Those Medicines are hot in the second Degree, which manifestly heat, but without Hurt.* As the *Roots*, of Smallage, Cappars, Hogs-fennel, Pimpernel, Nape, Zedoary, Rhodia. *Leaves* of; wormwood, Calves snout, Green dil, Angelica, Smallage, Mugwort, Betonie, Calamus odoratus, Chamepitys, Fœnum græcum, Hypericum, Ivie, Hops, Baume, Hoar-hound, Feverfew, Basil, Chervil, Pimpernel, Hogs-fenel, Polium, Rosemary, Savory, Sage, Scabious, Scordium, Stechados, Tansey. *Flowers* of Amomum, Safron, Gilloflowers, Schœnanth, Lavendar, Hops, Baume, Rosemary. *Seeds*, of Dil, Smallage, Orobus, Rocket, Basil, Nettle. *Fruits*; of Cappars, Nutmegs, Pistachives, drie figs, drie nuts. *Barks*; of cassia lignea, Cinnamon, Franckincense, of Cappar roots. *Liquors, Gums Rosins*; Wine which is not old, Ladanum, Aloe, Galbanum, Myrrhe, Mastich, Franckincense, Storax. Fat, Lions-fat, Panthers, Beares and Foxes grease.

III. *Hot in the third degree are such things, as doe vehemently Heat, and with trouble, but without Corruption*: as the *Roots* of Acorus, Asarum, Squils, Dictamus, Doronicum, Fennel, Galangal, both the Hellebors, Enula Campane, Orice, persley, Radish. *Leaves*; Southernwood, Asarum, Agnus Castus, Arum, Ammoum, Bishops-weed, Dry dil, Baccharis, Dictamus, Avens, Ground Oak, Cnicus, Centaury, the greater and the less; Celondine, Calamint, Flea-bane, Menthastrum, Fennel, Epithymum, Elecampane, Juniper, Hysop, Bayes, Marjoram, Cockow-Pintle, Mint, Nigella, Ænanthe, Bindweed, Persley, Sneez-wort, Peny-Royal, Rest-harrow, Rue, Savine, Wild-Time, Water-mint, Time, Trefoil, Vervain, Nettles. *Flowers*; Agnus Castus, Epithymum, Leucoium, Ænanthe, Periclymen. *Seeds* of Byshops-weed, Anise, Amomum, Carway, Cardamom, Water-Cresses, Fennel, Carot, Cummin, Nigella, Navew, Persley, Seseli, Staphes-acre, Agnus Castus. *Fruits*; Juniper Beries, Cloves, Carpobalsamum, Anacardia, Pepper. 4. *Barks*, of Mace, *Liquors*, *Tears*, *Gums*; old Wine, Asa dulcis, fœtida, Ammoniacum, Cedrian, pitch, Opopanax, Mosch. *Metaline*, flower of Brass, Burnt Brass, scales of Brass, Verdigreise, Diphryges, Alum, Salt, Nitre, Sulphur, Vitriol.

IV. *Hot in the fourth degree, are such as heat with the greatest dammage to the Humane Body*: as, *Rootes*, Garlick, Onion, Costus, Leeks, Pellitory. *Leaves*, Pepper-wort, both the Water-cresses, the Headed-Leek, Fullers Herb, Thapsia, and Spurge. *Seeds* of Water-Cresses, Mustard. *Fruits*, Pepper; *Gums*, Euphorbium: *Metaline substances*; Vitriol, Orpment, Sandarach, Chrysocolla, Misy, sory, Melantheria.

Point II. *Of cold Medicaments*

Cold Medicaments are, such as alter the Body of Man by cooling, and they are such, in the first, second, third, and fourth degree.

I. *Cold in the first degree are such as scarce sensibly*

ſenſibly coole the Boody of Man, and they are *Roots* of Mallowes; *Leaves* of Orach, ſharp-pointed-dock, apple-tree, Myrtle, Pellitory. *Flowers* of, Mallowes, Roſes, Violets; *Seeds* of Barley, Millet. *Fruits*, Citron-pulp, Quinces, Peares, Prunes. *Juices concrete*, Acacia, Dragons blood. *Stones*, hyacinth, Saphire, Smaragd.

II. *Cold in the ſecond are ſuch as manifeſtly cool, but without hurt*, as the Leaves of Blite, Dandelyon, Lettuce, Duck-weed, Hyacinth, Sorrel, Plantane, Solomons Seale, Flea-wort, Nightſhade. *Flowers*, of yellow Anemone: *Fruits* of Gourd, Cucumer, Galls, Auranges, Peaches, Damask prunes, Pompions, Pomegranates. *Wood*, of Sanders.

III. *Cold in the third degree are, which do indeed vehemently coole, but without deſtroying or corrupting the Body: as Roots* of Mandrake, Leaves of Purſlane, mandrake, Houſeleek, Henbane. *Flowers* Balauſtian. *Seeds*, of Hemlock, Henbane, Poppie. Fruites, Golden Apples, Mad-Apples. *Juyce* of Hypociſtis.

IV. *Cold in the fourth degree are ſuch things as corrupt by cooling and deſtroy the body*; as *Leaves* of Hemlock, Poppie. *Fruits* of Thorne Apple. *Juyces*; Meconium, Opium, according to the vulgar opinion. See thereof *Doringius*, *Hartman*, *Freſtagius*.

Point, III. *Of moiſtining Medicaments.*

Moiſtening Medicaments, are ſuch as by their moiſtening faculty alter the Body of Man. And the moſt are ſuch only in the firſt and ſecond degree.

I. *Moiſt in the firſt degree* are *Rootes*; of Satyrium, Bugloſs, Lycorize, Mallowes, Rapes; The *Herbs* of Bugloſs, Helxine, Mallowes. *Flowers* of Bugloſs Mallows, Endive. *Seeds* of Mallowes, Seſamus. *Fruits*, the pulpe of a Citron, Jujubees, Sweet Almonds.

II. *Moiſt in the ſecond Degree* are, *Herbes*, Violet leaves, water-lilly-leaves, Orach, Blite, Lettuce, Duck-weed, Purſlane. *Flowers*; of water-lillies, violets. *Fruits*; of the Gourd, Melons, Pepons, Peaches, Damask prunes, ripe Grapes, Sugar.

Point, IV. *Of drie Medicaments.*

Drie Medicaments are ſuch as alter the Bodie of Man by drying; and they are ſo, in the firſt, ſecond, third and fourth degree.

I. *Dry in the firſt degree* are *Roots*; Bryonie, Madder, Ænanthe, Tamarisk, Marſhmallowes, Cucko-pintle. *Leaves*; of Bete, Coleworts, Chamæmel, Fenel, Hyacinth, Malabachrum, Myrtle, Mullein. *Flowers*, of Oxe-eye, Chamæmel, Safron, Hyacinth, Melilote, Roſes. *Seeds* of Beanes, Fænugreek, Barley. *Fruits* of Juniper Berries, Chaſtnuts. *Gums*, as Franckincenſe.

II. *Dry in the ſecond degree*, are *Roots*; of Cappars, Cichory, Raddiſh. *Herbes*, Pimpernel, Mugwort, green dil, Betonie, Dodder, Calamus aromaticus, Endive, Sea-Colewort, Shepheards-pouch, Horſ-taile, Tooth-pick, Mint, Wild mint, Plantane, Roſemary, Spicknard, Comfery, fumitory, Pimpinel, Sorrel, Vervaine, Shepherds-Rod. *Flowers*; Balauſtians, Peony flowers, Anemoneyes, Ground-pine, bind-weed and ſtæchados. *Seeds*; of Fenel, Garden-creſſes, lentils, Orobus, Millet, Rice, Poppie, Nightſhade. *Fruits*; Ballanus Myrepſica, Cappars, Quinces, Cypreſs-nuts, Nutmegs, Peares, Piſtachius. *Wood*, of Sanders, *Teares*, *Gums*, *Roſins*; Galbanum, Opopanax, Stone-pitch, Myrrh, Storax, Maſtich, Honey.

III. *Drie* in the *third degree* are Roots, of Acorus, Aſarum, Smalladge, cinnamon, Doronicum, Galangal, Hellebore, Pentaphyllum, Hollow-root, Squil, Three-leaved-ſorrel, Trefoile. *Leaves and Hearbs*; Fearne, Milletoile, Cinquefoile, Polium, Trefoile, Southernwood, Wormwood, Burnt dil, Smalladge Biſhops-weed, Aſarum, Calamint, Ground oake, Ground-pine, Epithymum, Hyſſop, Juniper, Marjorum, Hoare-hound, Origanum, Hogs-fennel, Perſeley, Sneeze-wort, Rue, Savine, Willow, Watermint, Time, Runing-betony. *Flowers*, of Balauſtians, of Epithimum, of Ground-pine of Bind-weed. *Seeds* of Dil, Smalladge, Buſhop-weed, Amomum, Aniſ-ſeed, carway, Cumin, Coriander, Nigella, perſeley, Gromwel, Agnus Caſtus, Grana tinctorum. *Fruits*; Cloves, Carpobalſamum, Galls, Peper, Juniper Berries. *Juices* and *Gums*; Aloe Acetum, acacia, camphire, moſch. *Metalline matters*, Flower of braſs, burnt braſs, Scales of braſs, verdigreeſe, diphryges, alume, Salt, Nitre, Sulphur, Chalcitis.

IV. *Things dry in the fourth degree* are of *herbes*; wild Rue, Garlick, Water-Creſſes, Muſtard. Of the *Metalline Medicaments*, Vitriol, Orpment, Sandarach, Chryſocolla, Mily, Sory, Melantheria.

Point, 5.

Point, V. *Of Medicaments, digestive, Emollient, Hardening and Loosening.*

Digestive Medicaments are such as assist Nature in concocting such humors as are præternaturally offensive.

They are also termed *præparatives.* Now they prepare, either by removeing impediments, or by changing the Qualities which resist the action of Natural Heate, respect being nevertheless had to the part wherein the Humors reside.

They are differenced according to the difference of Humors which they prepare. *Yellow choler,* requires things cooling and drying; and if it be thin, it requires thickners. *Flegm* stands in need of Heaters, Dryers and attenuaters. *Melancholy* is corrected by things moderately heateing, moistening, and attenuateing. *Black choler* by things cooling, very much moistening and attenuateing.

A Catalogue of these Medicaments may be drawn from such as are attributed to every part of the Body, of which we shal speake anon; and therefore to avoide tautologie, we omit them for the present.

II. *Emollients, are such medicaments as soften and dissolve such Humors as are compacted together, either primarily, as a glewish excrement in the bands of the Muscles; or secondarily, viz. when the thinner parts being either digested, by the unseasonable use of Resolveing Medicaments, or being driven away by overmuch use of Repellers, the remaining parts grow compacted.*

The Greekes cal them malactica: and they must be hot in the second degree, a little dry, of a daubing faculty so as to hinder diffiation; and they must be mingled with moistners. They are either *Indiffernt,* or *Strong.*

I. Things *indifferently emollient.* 1. Of *Simples,* are the *Roots* of Lillies, Marsh-mallowes, wild Cucumer, Bryonie. *Leaves* of Mallowes, Pellitory, Violets, Dwarfe-elder; Elder. *Flowers* of Chamemel. *Seeds,* of Fenugreek, Line, Sesamus, Mallows. *Fruits,* fat Figs. *Fats,* fresh butter, fat of an Hen, Hogs-Grease, Calves-grease, Kids-suet, Weathers-suet, al marrowes. &c. Of *Compoundes, oile* of Lin-seed, sweet-almonds, White-Lillies, Worms. *Ointments,* of Althea, Unguentum resumptivum. *Emplaster,* de Mucilaginibus.

II. The *stronger* sort are Beares-grease, old oile, bdellium, liquid storax, fat rosins, Ammoniacum, Galbanum, Emplastrum Diachylon simple, and cum Gummi.

III. *Hardners* are *opposed to Emollients*; the Greeks cal them *Sclerotica,* or *Sclerunonta,* and they are cold and moist, as, Sempervivum, purslane, psyllium, Duckweed, Nightshade.

IV. *Relaxers are Medicaments which abate the distention caused by some matter, vapor, or wind, filling and stretching the spaces of the parts.* They are moderately hot, very moistening, and of thin substance, for the more easie penetration, as Lillies, seeds of Line, Fenugreek, Fats, Butter, Chamomel Oyl.

Point V. *Of Medicaments which Rarifie, condense, stop, and open the mouths of the Vessels.*

Rarifying Medicaments, are such as open the pores of the Skin, and make them wider, that the Vapors may be better transpired. They are moderately hot, of thin parts, and not drying; such as are, among Herbs, Marsh-mallows, Mercury. *Flowers* of Chamomel, Melilot, Elder. *Seeds* of Fenugreek, Line, Oyl which is old, and Butter.

II. *Condensers are, such things as contract and straighten the smal pores of the body, but are not able to compact the whol part, strongly, and every where.* They are of a watry Nature, as, cold water; of *Herbs,* Purslane, Housleek, Flea-wort, Mous-ear, Duckweed, green Thistles, Prick-madam, the greater and the lesser.

III. *Stoppers, by their thickneß,* do so stick externally upon the pores of the body, that by their coldnes and drynes, they contract the part. There are of this kind, *Astringents* so called. Such as are, among *Simples,* the *Roots* of Tormentil, Plantane, greater Comfry, dry water Lillies, Sorrel, Cutmallow, Filipendula, peony, Avens, Strawberry, Bistort, Rhaponticum, Rhubarb tosted. *Leaves,* of plantane, Knotgrass, Gnaphalium, Loos-strife, Solomons Seal, Horstail, Shepherds-pouch, Mous-ear, Oak. *Flowers,* of Roses, pomegranates, Ivy. *Seeds,* of plantane, purslane, Sorrel, Roses. *Fruits,* Quinces, Medlars, Barberries, Services, Cornel-berries, Galls, Raison-stones, Cypres nuts, myrtle berries. *Shels and Rinds,* of pomegranates, Frankincense tree, myrobalans, mulberries. *Gums,* of mastich, Dragons blood. *Juyces,* of Hypocistis, sour Grapes, Acacia. *Minerals,* Terra sigillata, Bole armeniack, blood-stone, Allum, Coral, Iron. Of *Animals,* Harts-horn

horn prepared, Stags pizzle, &c. *Of Compounds* are, *Water* of Roſes, purſlane, plantane, privet. *Syrup* of red Roſes, Quinces, Barberries, marmalade of Quinces, Diacodium narcoticum, Crocus martis aſtringens, pouder of mans bones calcined, freſh made Treacle, Juyce of pomegranates, of Acacia, old conſerve of Red Roſes. The *ſtronger* ſort of theſe medicaments are, Balauſtians, myrtles, Acacia, Hypociſtis, Sumach, pomegranate, medlar, &c.

IV. *Anaſtomaticks, are medicaments which open the mouths of the Veſſels, and are therefore by the Greeks ſo named,* becauſe they ought to penetrate into the inner parts of the body, and to attenuate groſs humors; and therfore they ought to be both hot in the ſecond degree, and endued with a more thick ſubſtance than ordinary, that they may retain heat the longer. Bitter things are moſt convenient.

Point VII. *Of Attenuating, Aperient, and incraſſating Medicaments.*

I. *Attenuating medicaments, are ſuch as diſſolve and make thin, thick, clammy, and glewiſh humors, ſo that either they vaniſh of their own accord, or are eaſily diſſipated by the operation of Drawers.* They muſt be of a thin ſubſtance, hot in the third degree; which is nevertheleſs, not alwaies neceſſary. For the juyce of Lemmons, Vinegar, Oxymel, do attenuate, and cut, though they are cold. See the Catalogue among Operatives.

II. *Apperitive medicaments, do open inward Obſtructions of the Body.* They ought to be of a thin ſubſtance; and therefore are reckoned among ſuch things as appear hot and biting to the ſmel and taſt, which have a nitrous, ſalt, bitter, and acid taſt: but ſeeing there is variety both of the matter obſtructing, and the bodies obſtructed, ſomtimes ſuch as are of thin parts, ſometimes ſuch as are not ſo qualified, are given. Now they are theſe; Among Simples, of *Roots*, the five opening Roots, ſo called, viz. (of Smallage, Fennel, Aſparagus, parſly, and Holm) of Graſs, Cichory, Eryngos, Gentian, Fern, madder, Rhaponticum, Aſarum, Cappars, Tamariſk, Aſh. *Herbs*, Fumitory, Wormwood, Agrimony, maiden-hair, Liver-wort, ceterach, chamepitys, chamedrys, Dodder, Horehound, calamint, penyroyal, ſcurvygraſs, Brooklime, Water-creſſes, Hops, white Horehound, Wormwood. *Seeds* of Annis, Fennel, Ameos, Agnus caſtus, Vetches, Lupines. *Fruits*, bitter Almonds, Cappars, Peach-kernels, Apricock-kernels. *Spices*, Cinamon, Cubebs. *Gums and juyces*, Ammoniacum, Vinegar, Juyce of Lemmons. *Of compounds* are, *waters* of the foreſaid ſimples; Oximel ſimple, Scyllitick, Syrupe of opening roots, *Trochiſcks* of Rubarb, Wormwood, Egrimony, Lacca-gum. Tartar Vitriolated, Creame thereof, Chriſtals and Tincture of Tartar. Tincture of ſteele, pouder, aperient crocus and pils thereof.

III. *Incraſſaters* or *thickners, do make the thin and liquid juices more thick.* They are cold or temperate without acrimonie, and of thick ſubſtance; ſuch as, Porſlane, Sorrel, Poppy, Rice, Lentils, Quinces, Peares, Starch, Chalybeate milk, and juice of Pomegranates.

Point, VIII. Of *Obſtructive, And Deobſtructive* Medicaments.

I. *Emplaſtick or obſtructive medicaments are ſuch as by their ſubſtance, do daub, ſtop and clam up the paſſages of the Body, and being ſmeared thereon, ſtick faſt thereto being of a Conſiſtence, either dry and earthy, but without any biting quality, or ful of watry and aerie humor.* They are. I. *Among ſimples.* 1. *Roots*; Of Marſhmallowes, White-Lillies; *Seeds*, Wheate, Starch, Pine-kernels ſteeped in water, Fenugreek, al Mucilages. *Fruits*, Figs, Raiſons. *Gums*, Arabick, Tragant, Dragons blood. *Earths*; Terra ſigillata, Bole-Armeniack. *Juyces*; Alum. *Stones*, Lapis Calaminaris, Bloodſtone, Potters-clay. *Minerals*, litteridge of Gold and Silver, Lead, Oare of braſs, Pompholyx; Cerus. *Animals*, Mumia, freſh fats, marrowes, freſh butter, Cheeſe, whites of Eggs, Wax. II. *Compounds of theſe*; Unguentum Album, Nutritum.

II. *Deobſtructers, do ſcoure away clammy glutinous humors, which ſtick unto the body; they are hot or cold, ſalt, bitter, nitrous.* Such are· I. *Of Simples.* 1. *Roots* of birthwort, Orice, Gentian, Solomons ſeale, Tamariſk. *Leaves*; of Smallage, Wormwood, Centorie, Southernwood, Hyſop, Watercreſſes, Horehound, Agrimony, Ground-Oake, Tanſey, Harts-tongue, Pimpernel. *Seeds*; of Lime, Fenugreek, barly, Orobus, Lupines, and their meales. *Juyces*; Aloes and Sugar. *Gums*; myrrh. *Roſins*; Terpentine. *Mineralls*; verdigriſe, Vitriol. *Animals*; whey, beaſts-Gal.

III. *Extergents*;

III. *Extergents*; differ only gradually. Of this kind are Oxymel, Alume water, Unguentum Ægyptiacum, &c.

Point, VIII. Of *Anodynes, and Narcoticks.*

Anodyne Medicaments are those which by their moderate heate, and soft substance, do asswage paine, by opening the pores of the body, and entering thereinto by the tenuity of their substance; and discuss the cause thereof by insensible transpration. Such are. I. Among *Simples*, the Roots; of Marsh-mallowes, Lillies. *Leaves*; of Mallowes, Elder. *Flowers*; of Chamemel, Melilote, Safron. *Seeds*, of Lime, Fenugreek. *Animals*; Fats, of Hogs, Hens, Geese, Calves, Man-fat. *Marrow*; of Oxen, Calves. Milke, butter. II. Of *Compounds*, oiles; of white lillies, Chamomel, Violets, sweet almonds, linseed, worms, and (which is most commended) sweet oile of Roses, of a middle age.

II. *Narcoticks stupifie the part, so that it cannot feel that which pains.* This they do, partly by their coldnes, partly by an hidden Quallity. Of this kind are. I. *Simples*, the *Roots* of Mandrake; *Leaves* of Henbane, mandrake. *Seeds*, of white-poppey. *Juyces*, Opium. II. *Compounds*: *oiles*, of Mandrake *Unguentum* popeleon, *laudanum* ossiatum, *Fernelius* his narcotick lozenges. Spirit of Darnel, &c.

Article. 2. *Of Medicaments which cause motion.*

Medicines which cause motion are either *Drawers*, *Repellers*, or *Astringents*.

I. *Drawers, are such as draw from the deepe parts of the Body into the surface thereof, not only thin and wheyish humors, but also such as are thick, and fast rooted in the Parts of the Body.* They are either hot in the second degree, which draw moderately; or in the third degree, which draw strongly; or in the fourth degree, which swel the skin. Such are. I. Of *simple Roots*, of the two Birthworts, Anemony, bindweed, Tragon, Gentian, Pellitory, Crowfoot, Daffodilly, Reeds, Cuckow pintle, Thapsia, Garlick, onions. *Leaves*: of Wild-Cresses, Calamint, Purple Anagallis, Nex, Thlaspi, Ivie. *Seeds*, of Nettle, Navew, Water-cresses. *Gums*, Euphorbium, Ammoniacum, Galbanum, Sagapenum. *Rosins*; Pitch, Vulgar Rosin. *Annimals*; Dung of Pigeons, Hens, Cantharides. II. Of *Compounds*, Emplastrum Oxycroceum.

II. *I cal them repellers, which do either by their cold watryness prohibit the influx of humors into any part; or drive back such as are already flowed in, but are not fastened.* They are. 1. *Among simples*; the *Roots*, of Plantane. *Barks*; of Mandrake roots; *Leaves*; of Housleek, Purslane, Duck-weed, Endive, Lettuce, Nightshade, Water-thistle, Venus navil, Lentisk, Sumach, Henbane. *Flowers*; of red roses. *Seeds*; of Fleawort Plantane. *Of compounds*; Waters of Roses, Nightshade, Plantane.

III. *Astringents are such as consist of a thick and earthy substance, stop the passages of the part, force out the the thinner particles of the humor, and consequently do also repel.* They are either Cold or Hot. Cold are, among *Simples*, the Roots; of Sloes, Cinquefoile, bistort, tormentil, great Comfery. *Barks*; of myrobalans, Pomegranates, Frankincense tree, Barbery-tree. *Leaves*; of Horse-taile, smal daisie, mouse-eare, Knot-grass, Shepards pouch. *Flowers*: of Roses balaustians. *Seeds* of Sorrel, porslane, myrtils, White-popy. *Fruits*, Services, Quinces, meddlers, myrtle berries, unripe mulberries. *Gums*, mastich, Dragons-blood. *Earths*: Terra sigillata, bolus Armenia. *Of compounds*: are Waters of Roses, of Plantane, of Privet flowers. *Syrups*; of red-roses, of Quinces. *Conserves*, of dried-roses, Quinces, New made treacle. *Juice* of Pomegranates, trefoile, Crabs, sower Grapes. *Pouders*: Diacorallium, Crocus martis, Burnt harts horne, mans-bones, Spodium, Ambar. *Pills*: de Cynoglossa. Hot astringents are, Cyperus, Wormwood, Calamus Aromaticus, Schænanth, aloe, Thus, Myrrh, Spike, Barks of Frankincense-tree, Cypres-nuts, Alum.

Article, 3. *Of Medicaments which generate somewhat.*

Point, 1. *Of Ripeners, Quittor-breeders, and Flesh restorers.*

Medicaments which breed somewhat are in a six-fold difference. 1. *Ripeners or Quittor-breeders.* 2. *Flesh-breeders.* 3. *Glewers.* 4. *Scarbringers.* 5. *Milke-breeders,* 6. *Seed-encreasers.*

I. *Ripeners, and Quittor-breeders, are such by whose helpe, the Natural Heat turnes*

turnes corrupt blood into Quittor. They are moderately hot and moiſt, and like in temperament to the part whereunto they are applied. Alſo by ſhutting the pores, they keep in the heate. They are in a *twofold* difference. *Some are meerly of a temperate heate, and clammy which we uſe in hot tumors,* ſuch as are, Mucilages of Lin-ſeed, Fenugreek, Mallowes, Marſhmallowes, Water and oile, Wheate-meale, Milke, Crum of wheaten breade, Hogs-greaſe, freſh-butter, Unguentum Dialthea. *Others are hot, which we uſe in cold tumors and parts;* ſuch as the Gums, Ammoniacum, Bdellium, Galbanum. Roſins; Terpentine, Pitch, Vulgar roſins. *Teares* of Firr, Birch and Pine-tree. *Oiles* of Chamomel, White-Lillies. *Ointments*; of Agrippa, Baſilicon, *Majus* and *minus*. Emplaſters; diachylon ſimple and cum gummi. II. *Sarcoticks or Fleſh-breeders are ſuch things as aſſiſt nature to change blood into fleſh, both by preſerving the Heate of the Part, and removeing ſuch Excrements as hinder the work.* They do moderately heat and drie; alſo they cleanſe away filth, without any biteing, or aſtriction. They are of a *Three fold Rank*, In the *firſt* ranke or degree, are placed meale of Barly, of Fenugreek, of beanes; Franckincenſe, Manna, thuris. In the *Second*, Terpentine roſin, Larch-roſin, Fir-roſin, Clarified Honey, hony of Roſes. Aloes, meale of Lupines, orobus, and Pompholyx. In the *third degree*, meale of Orobus, raw honey, birthwort root, orice roote, myrrh, Viriol.

Point 2. *Of Sodderers, and Scar-bringers.*

I. *Glewing, or ſoddering Medicaments, are ſuch as bring together the gaping lips of freſh wounds, and binder any thing from flowing into, or growing between them.* Of which kind are among *Simples*, the *Roots* of Tormentil, Cinque-foile, Biſtort. *Leaves*; of Mouſe-eare, plantaine, St. Johns-wort, Bugula, Sanicle, Pyrola, Wal-Sage, Rupture-wort, Willow, Vervaine. *Gums*; Myrrh, Frankincenſe, Sarcocolla. *Jucies thickned*; Aloes, Hypociſtis. *Roſins*; Pitch, Terpentine. Of *compounds*; Oyntment of Lituridge, of Betony.

II. *Scarbringers, are Medicaments which conſume both that which flowes to, and that humor which is already in the fleſh, that the fleſh may be changed into the ſimilitude of Skin.* Thick are of thick ſubſtance, vehemently drying, aſtringent and contracting. The cheife are, *Roots*, of tormentil, Cinquefoil. *Herbes*; Comfry, Thorough-waxe, Horſe-taile, Plantane. *Flowers*; balauſtians, *Juyces concrete*, Coral, Aloes, Juyce of dragon. Earths; Alum, Bole Armeniack. *Metelline ſubſtances*, Lead, Cadmia, Litteridg, Braſs-burnt, and waſhed, Antimony.

III. Hitherto belong Vulnerary Medicaments, of which vulnerary potions are made. And they are, the roots; of greate Comfry, Biſtort, Tormentil. *Leaves*; *of* Lady-mantle, Shephards-pouch, Golden-rod, Balſaminum, Vervaine, Fluellin, St. Johnswort, Millefoil, Sanicle, Horſ-taile, Elme, Plantaine, Betony, Cypreſs, Mouſe-eare. Flowers; of red-roſes, St. Johnswort, Balauſtians. *Fruits*; Cypreſs nuts. *Gums*, *Teares*; Frankincenſe, Aloe, Maſtich, Teares of the firr, Terpentine, pine and larch roſins, Stone-pitch, liquor of Elme-leaves, Gum Elemi, Gum of Juniper, of Ivie, of Tragant, Tacamahaca, caranna, Sarcocolla, Dragons-Blood &c.

Point, III. *Of Milke and Seed-breeders.*

I. *Milk-breeding Medicaments in this place are ſuch, as both helpe to make good blood, and moderately attenuate the ſame and bring it to the Duggs,* ſuch as are theſe following: green Fenel, the ſeed thereof, Green Dil, Smalladge, pouder of Chriſtal, Decoction of Colewort, Butter taken with milke and fenel, Smyrnium, Polium, Rocket, &c.

II. *Seed-breeding Medicaments, both thoſe which carrie matter to the ſpermatick veſſels, and they which provoke to the expulſion of ſeed whether they fil it with wind, or ad aſpir or provocation thereto.* The cheif are theſe, *Roots*; of Eryngos, Satyrion, Ginger. *Seeds*; of Rocket, Muſtard, Nettles, Pepper. *Fruits* Pine-kernels, Piſtachios, Haſel nuts, the Pap of the Indian nut. *Parts of Animals*; Reins of the Scinci, Braines of Sparrowes, Stags-Pizzle, Cocks-ſtones.

Article, IV. *Of corrupting Medicaments.*

Corruptive Medicaments are. 1. *Rubifiers.* 2. *Veſicatories.* 3. *Such as induce a Cruſt.* 4. *Burners.* 5. *Corroſives.* 6. *Putrefiers.* 7. *Pſilothra, hair-grubbers,*

8. *Milke-wasters.* 9. *Seed-confounders.*

I. *Rubifiers* make the skin red, and draw Humors from the inner parts of the Body into the skin, such as are the Roots of Thapsia, *Seeds* of Water-cresses, Nettles, Mustard.

II. *Vesicatories* raise bladders, and by their Ardency draw forth humors. The cheife are, Roots, of Bind-weed, Pellitory, Squil, Garlick, Thapsia. *Herbs*; Doves-foot, Flammula, Crow-foot. *Seed*; Of water cresses, Mustard. Also, Euphorbium, Leaven, Soap, Pidgeons-dung, Cantharides.

III. *Crust-Creators*, do not only raise up the scarfe-skin, but also burne the skin it self, howbeit their operation goes no further.

IV. *Burners or Causticks*, bring a thiker crust than the former, and often work upon the flesh beneathe, the cheife are: White Hellebore, ashes of vine-dregs, ashes of the fig-tree, Ashe, and savine tree. Brass-burnt, flower of brass, quick-lime, Vitriol, orpment, Arsenick, mercury sublimate, Salt made of Lie of which soap is made,

V. *Corroders*, take away proude flesh, and do by little and little, melt the upper surface thereof. The *milder* are, *Roots* of white vine, black-hellebore. *Ashes* of the Oake, fig-tree, Conchylium. Aloe, Alum; burnt lead, Antimony calcined. The *stronger* are; Quick-lime, Flower of Brass, Brass-burnt, Vitriol calcined, Quick-silver precipitate, Sublimate, Oyl of vitriol, sulphur &c.

VI. *Putrifiers*, do melt hard flesh. Such are Arsenick, Orpment, Chrysocolla, dryopteris, Pityocampe, aconitum, Sandarach.

VII. *Hair-grubbers*, are such medicines as pluck up by the Roots the Haires of the Body, so as to make the part where they are applied, bald and smooth; such as are, strong lie, quick-lime, ants-egs, sandarach arsenick, orpment &c.

VIII. *Milke-wasters*, do either incrassate and thicken the blood, by overcooleing it, or they dry up and digest the same, or finally they do by their whole substance destroy the Milke. Such are, Mints, Sage, Calamint, Coriander, Henbane, Oyl of unripe Olives, Vinigar, Camphire.

IX. *Seed confounders*, do either coole, thicken, or discuss the same, or consume it by an hidden property. Such are: Mint, Rue, Agnus Castus, Dil, *Seeds* of Hempe, Fleawort. Lettuce, Purslaine, Champhire &c.

Article, V.

Article. V. *Of* Medicaments *which take somewhat away.*

Point. 1. *Of Purgeing* Medicaments.

Medicaments which take something from the Body are: 1. *Purgers.* 2. *Vomiters.* 3. *Diureticks.* 4. *Sweaters.* 5. *Transpirers.* 6. *Braine-purgers.* 7. *Expectorators.*

Purgers are such Medicaments, *as drive out by stool, such humors as preternaturally nestle themselves in mans body.* And they are 1. Choler-purgers. 2. Phlegm-purgers. 3. Melancholly-purgers. 4. Water-purgers. 5. Purgers of all humors together.

I. *Choller-purgers*, are medicaments which drive out preternatural choler. And they are 1. Mild; as among simples, Cassia fistularis, which because it is hurtful to a moist slippery belly and to the stomach, and is windy, it is corrected with a graine or two of peper, aniseed or Cinamon, and is given in a bole, commonly from sixe drams to two ounces; to children two drams may be given. *Tamarins* or Indian dates, convenient for hot Constitutions; which because of their coldness, are corrected with Cinnamon and Mace, and by reason of their lazyness, they are quickned with whey of Goates-milk. They are given in Pulpe, from an ounce to two ounces or three, and in the Infusion to five ounces. *Manna Calabrina*, which is safe in al cases, excepting burning fevers; tis quickned, with syrup of Roses solutive. It is taken in Prune-broath, or the Broath of a Cock or Hen, to the Quantity of three or four ounces. *Aloe Soccotrina*, which taken in too greate a Quantity inflames the Liver: because it opens the orifices of the Veines tis not safe for women with child. Nor is it good for hot and dry natures. 'Tis nourished or impredgnated with juice of damaske Roses. 'Tis corrected with mastich because of its Acrimonie. It is given from halfe a dram to a dram & more: see thereof *Solenander*, sect. 3. Counsel, 29. *Rhubarb*, the soule of the Liver, which must not be given alone, because it is apt to fume, and easily exhales, but with endive water, or syrup of Roses solutive; it must not be given to such as are troubled with the strangury, nor those that are subject to the Hemorrhoides. 'Tis corrected with Cinnamon, Spicknard, Schenanth. 'Tis given from one dram to two drams. *Damaskroses*, musked, fragrant, bitter and detergent. Their Virtue is encreased, if two

ounces

ounces of whey be mixed with an ounce of their juyce, a little ſpike and Cinnamon being added. *Violets*, which are of like vertue with roſes, exceeding good in diſeaſes of the Breſt and Head-ache. *Terpentine*, eſpecially piſtick, which with pouder of Lycoris and Sugar, is made into Boles, and given to cleanſe the kidnies. Lemnius commends it in a potion. *Among compounds are*, Syrup of roſes ſolutive, hurtful for women with child, becauſe it opens the veines of the wombe, from two ounces to four. Roſe-leaves muſt be gathered while the morning dew is upon them. Their ſtrength laſts hardly beyond ſix monthes. Syrup of the flowers of Acacia, de Manna Laxativus, Horſtius his ſyrupe of tamarinds with ſenna. Pilulæ Angelicæ, Benedicta Bejeri. Hiera mellita, from a dram to four drams. II. The *ſtronger* are, amonge ſimples, *Aſarum*, which being long boiled loſes its ſtrength; very wel beaten, it moves vomit. It is given with whey, wine and honey ſod together. *Scammonie*, which muſt never be given to ſuch as are inclined to vomit, feveriſh, weak perſons, in the ſummer, in broaths, alone, becauſe its acrimonie diſturbes the body, inflames the ſpirits, hurts the principal parts. 'Tis corrected with juice of Quinces, mucilage of Gum Tragant, ſpirit of ſulphur or vitriol. Being corrected tis called Diagrydium. 'Tis given from five graines to fifteen. *Of compounds* are *Pilulæ Rhudji* to a ſcruple; *Aureæ*, which are moſt in uſe. *Extract of Scamonie.* The Magiſterie thereof, which ſee in *Mynſichtus* and *Grulingius*.

II. *Phlegme-purging Medicaments are ſuch as draw excrementitious flegm out of the Body.* And they are. I. *More gentle among ſimples*, *Myrobalans*, Chebulan, and Emblican; which are to be avoided in obſtructions of the Gutts or Bowels; they are ſteeped in Chick-broath to an ounce, or boiled therein, with muſcadine. *Cnicus* or *Carthamus ſeeds*, which purge water, and crude flegme, and raiſe wind; becauſe they provoke vomit, they are corrected with Aniſe, Ginger and Maſtich. *Mechoacan*, which is of ſubtile parts mingled with Earthy. Of exquiſite tertian Agues, it makes double ones. It works moſt happily in the forme of a pouder, or if it be ſteeped a night, in wine, or broath, and drunke in the Morning. Amonge *compounds* are, ſpices of Hiera picra ſimple. Lozenges of Mechoacan, deſcribed by Horſtius. II. *Vehement Flegme-purgers* are, among ſimples, *Agarick*, which by a peculiar Faculty frees the Lungs from clammy thick and putrid humors. 'Tis ſafer in the Infuſion, than in the ſubſtance. *Jalop*, which is moſt proper, where choler is mixt with flegme. The Doſe is from a ſcruple to two ſcruples, with cream of Tartar. It has in it ſomwhat of Acrimony. *Turpetum* gummie and white, which becauſe it hurts the Stomach & provokes Vomit, is corrected with Ginger, Pepper and Cinnamon. By its dryneſs it brings the bodies of thoſe that over uſe it, into a Conſumption. It works beſt in a decoction. *Coliquintida*, which purges thick and clammy Humors from the remote parts; and becauſe it ſticks to the fibres of the ſtomach, it provokes vomiting. It muſt not be corrected by aſtringents, for they detain it, being a violent medicine, too long in the Body. *Hermodactyls*, which purge thick humors from the Joynts, and are corrected by atenuaters. *Euphorbium*, which is hot and dry, in the fourth degree: becauſe it inflames the Jaws and Throat, vexes the Stomach and Liver, raiſes cold ſweat, 'tis corrected with cordials and Stomach ſtrengtheners, but beſt of al with Oyl of Roſes. It muſt not be uſed inwardy before it be a year old. *Sagapenum* which brings out clammy and thick Humors. Of compounds are, Pils of Sagapena of Horſtius and Camillus. Syrup of Coloquintida, and Lozenges of Jalap, &c.

III. *Melancholy purgers, are ſuch as drive excrementitious melancholy out of the Body.* And they are, I. Gentle. Among ſimples, *Indian Myrobalans*, which are principally given in quartan Agues, and purge aduſt choler. *Epithymum*, which by a peculiar property above all other medicines, purges this Humor, howbeit but weakly. 'Tis more ſafely uſed in the Winter than the Summer. That of Crete, is the beſt. *Polypodie* of the Oak, which becauſe it binds when it is old, muſt be uſed freſh and new gathered. That which grows on over old Oaks, by its overmuch Humidity, ſubverts the ſtomach. *Sena*, which is uſed to draw humors out of the Meſentery, in the broth of Prunes, Reiſons, and in Whey, &c. its cods, if gathered when ful of juyce before they are fully ripe, wil work as the leaves doe; but withering upon the ſtalk, they loſe al their virtue. Among *Comporunds* are, *Syrup* of polypody, and Epthymum. *Pils* of Fumitory. Pouder of Sena of Montagnana, &c. II. The *ſtronger ſort* are, among *ſimples*, *Lapis Armenius*, which muſt be ſo long waſhed in cordial waters, til no more foulneſs appear. *Lapis lazuli*, which muſt

be used after the same manner. *Black Hellebore*, which is least dangerous, in the decoction. 'Tis best corrected with the flegm of Vitriol. An excellent way and Elegant to give it, is, to stick an apple with cloves and black Hellebore Roots, and roast it in the Embers. Among *Compounds* are, *Extract* of black Hellebore, and *Syrup* of the same, in Heurnius.

IV. *Water-purgers are Medicaments which drive waters out of Mans body.* I. The *more gentle* are, *among simples, Soldanella* or Sea-Colewort, which extreamly delights in the company of Rhubarb, and loses not its Vertue by boyling. 2. *Germane Orice*, which provokes the Courses, and loses its force, by boiling. The juyce of the Root is put in an Egshel with the yolk of the Egg, and so they are boil'd together or roasted til the Egg be soft boyled, so as it may be supt. Among *Compounds* are, *Conserve* of Peach Flowers, Pouder of Soldanella of Fowentinus, &c. II. The *more vehement sort* are, *Elaterium*, which slips even without the Veins and draws water away. It may be given to strong persons to the quantity of ten grains, if wel corrected [understand in German Bodies and tough english plough-men or Sadlors] 'tis corrected with Cinamon, Spike, &c. *Cambogia*, which because it makes the Stomach a little sick, it is corrected with Spirit of Salt and Mace. The use thereof is hurtful to cholerick natures. See *thereof Reudenius and Lotichius*. Hedge-Hyssop, which works upwards & downwards. It is dried and steeped in milk, & then dried again, so as that it may be reduced to pouder. *Esula*, whose Milk, Seed, Leaves are very strong, but the Root more mild. It must not be used til a month after it has been gathered. That is best, which is five or six months old. The Bark of the Root is chiefly in use. 'Tis corrected by Infusing three dais in Vineger. Among *Compounds* are, the Magistery of *Cambogia*, *Pilulæ Freytagii*, *Oyl* of Elder-berry Stones.

V. *Purgers of al Humors together, which are called Catholica and Panchymagoga*; are these which follow: of *simples*, Sena, Hellebore, Antimony, &c. Of the compounds, Panchymagogum Crollii, Vegitabile, Paracelsi, Extractum Catholicum majus & minus. Electuarium Diacatholicon, &c.

Point 2. *Of Vomitories and Diureticks.*

Vomitories are such Medicaments as cast forth bad humors, by the Mouth.

Which they do, either because they naturally tend upwards; or because they swim upon the Stomach and burthen the same; or because they loosen the upper Orifice of the Stomach. Of this sort are, I. The *more gentle*, simple water, Luke-warm water, Barley water, fat broaths, simple Oyl with water, Butter, Hydromel. *Root* of Orach, Garden Cowcomber, Melons, Daffodillies, Asarum. *Flowers* of Peaches, of which conserve is made. *Seeds* of Rocket, Orach. The middle *Rind* of a Walnut Tree, when it is fullest of juyce, especially the Cats-tailes thereof. *Electuary* of Asarum of Fernelius. II. The *stronger* sort are, white Hellebore. The Vomitory of Cunradinus, which is given from three drops to ten drops. Gilla of Paracelsus. White vitriol vomitory. *Sala* his salt of vitriol. Flores Mercurii argentei. Mercurius Vitæ, Mercurius dulcis, Manna Mercurii, Aquila. Flowers of Antimony, Oyl and Electuary of Antimony, and Crocus Metallorum. Aqua benedicta of Quercetanus, Pismire water, *Platerus* his Wine, *Heurneus* his Helleborate wine, *Aqua Benedicta Rulandi.*

II. Diureticks, *are medicaments which provoke Urine, and by that means evacuate withal the morbifick matter.*

They are twofold: I. *Properly so called*, which easily penetrate into the Veins, and therein melt the Humors with their heat, and they are *Roots* of Parsly, Smallage, Eringos, Ruscus, Asparagus, Pimpernel. *Herbs*, Asarum, Liver-wort, Chervil, Scordium. *Seeds*, of Gromwel, Chervil, Saxifrage. *Fruits*, bitter Almonds, Peach Kernels, &c. among chymical preparations, is spirit of Salt, and whatever things are compounded of Tartar. II. Improperly so called, and they *either hot*, as Maiden-hair, Terpentine, Ambona Root, of which see *Zacutus*. *Or moist* and which lenifie the passages, as Mallow-seeds, Marshmallow, Lycorice. Or *cold*, as Strawberries, Barly, the four cool seeds, Bath-waters, Whey of Milk, Juice of Lemons. Also Peach-Kernel water with Muscadine is commended. The whitest flints heated red hot and quenched in rich Wine, Oyl of Wax from five drops to six. Salt of Amber, an half dram in weight. Water of Hips, Oyl of Juniper Berries, &c.

Point 3. *Of Hydroticks and Diaphoreticks.*

Hydroticks are, such medicaments as drive out

out the morbifick matter by the habit of the body, in a ſenſible manner, viz. *by ſweat.*

They are otherwiſe termed Sudorificks. The act by reaſon of their heat and thinneſs or ſubtilty of parts, turning the peccant matter into a vapor; and they which are cold, do act by a propriety of their Subſtance. Now they are, I. *Either Simples*, as Angelica, Pimpinella, Fumitory, Tormentil, Zedoary, China, Sarſaparilla, Saſſafras, Lignum Guajacum, Cornu Cervi, Bezoar ſtone, oriental and occidental.

2. *Or Compounds*, as, Orenge-Flower Water and Treacle water. *Spirit* of terra ſigilata, Tartar, Carduus, de tribus, Treacle, Mithridate. *Salt* of Scabious, Carduus, Wormwood, Aſh. Among chymical preparations, there is Aurum Diaphoreticum, Flowers of Antimony fixed, Turpetum minerale diaphoreticum, Sulfur Auratum, Bezoardicum joviale, &c.

II. Tranſpirers *properly termed Diaphoreticks, are ſuch medicaments as drive the morbifick mater through the pores of the Skin, inviſibly.* They are al hot, turn the Matter in a vaporous ſteam, and open the bodies pores. The chief are, Melilote, Fenugreek, Rue, Marjerom. *Of Kin* to theſe, are *Wind-diſcuſſers*, ſuch as are the *Roots* of the ſmaller Galangal. *Leavs* of Bayes, Dictamus Penyroial, Origanum, Rue, Marjerom. *Seeds* of Annis, Fenel, Carway, Cumin, Carrot. *Fruits*, Bay-berries, Juniper berries. *Barks* of Citrons, Orenges, &c.

Point 4. *Of Medicaments which purge the Brain.*

Brain-purgers are ſuch as void the morbifick matter neſtling in the Brain, by the Noſtrils or Pallate. The former are called *Errhina* and *Ptarmica*; the latter *Apophlegmatizantia.*

I. *Errhina*, do by their nitrous quality melt and diſſolve the flegm which hangs about the Coats of the Brain, and draw it out into the Noſtrils, without any diſturbance to the Brain it ſelf. The chief are, the *Roots* of Orice, Bindweed. *Leaves* of Bete, purple Anagallis, Marjerom, Sage, Berony, Ivy. *Juyces*, Elaterium, which is the ſtrongeſt, and Juyce of Pulſatilla. Alſo they may be made out of the foreſaid roots and Leaves.

II. *Ptarmica*, or *Sneezers*, do by their Acrimony ſo provoke the Expulſive Faculty of the Brain, as to cauſe it to caſt them out, and with them ſuch excrements as ſtick in the Brain it ſelf. The cheif are, the *Roots* of Ginger, Pellitory, Orice white Hellebore. *Leaves*, of ſneezewort, Tobacco *Seeds*, Peper, Muſtard, Staphiſacre, Nigella, Gums, Euphorbium, whoſe ſmel alone is ſufficient.

III. *Apophlegmatizers*, Being either chewed, or gargled, or ſmeared upon the Palate, bring down the Excrements from the Braine into the Palate and mouth. They are made of rootes, of Ginger, Pellitory of ſpaine. *Seeds*, of peper, watercreſſes, Muſtard, Staphiſacre; *Gum*; maſtick.

Point, V. *Of Expectorators.*

Expectorateing Medicaments are thoſe which evacuate humors contained in the cheſt and Lungs.

They are made of Roots of Alecampane, Birthwort, Angelica, Orice, Cuckow-pintle, Squills, Lycorice. Of the *Leaves* of Hyſſop, Maiden-haire, Scabious, Horehound, Colts foot. *Seeds* of Cotton, Watercreſſes, Eryſimum, Seſeli, Nettles. *Fruites*, reiſons, jujbes, ſebeſtens, Almonds, Figs, Piſtachios. Hither alſo appertaines Sperma, Ceti. See more of theſe in the Cheſt-medicines.

Chap. 6. *Of Medicaments denominated from the parts of the Body.*

Article. 1. *Of Cephalik Medicaments.*

Point. 1. *Of Cephalick Medicaments, which are hot.*

AND ſo we have done with our Muſter of ſuch Medicaments, as are denominated from their faculties: thoſe follow, *which receive their denomination from the parts of the Body, with which they have an Agreement, by reaſon of their whol ſubſtance and ſpecifical properties.*

Now they are theſe, *Caphalicks, Ophthalmicks, Thoracicks, Cardiacks, Stomachicks, Hepaticks, Splenetick, Nephritick, and Uterine Medicaments.* And al theſe are either *Hot* or *Cold*, *Internal* or *External.*

I. *Internal heating Cephalicks* are, 1. *Of Simples*, Roots of Pæonie, Caryophillata, Birthwort, Maſterwort, Calamus Aromaticus. *Leaves*; of Primroſe, Betony, Roſemary, Marjerom, Centory, Sage. *Flowers*; of the Linden-tree, Stæchados of Arabia,

Lilly-

Lilly-convally, Peony, Primrose, Betony. *Seeds*, of Amomum, Peonie, Mountaine withie, Coriander. *Fruits*; Kermes Berries, Anacardia, Bay and Juniper berries. *Spices*, Cubebs, Nutmeg, Cardamom, Cloves. *Woods*, Miseltoe of the Oake, and of the Hasel. *Tears*; Frankincense, Storax; *Sea-commodities*, Amber, Ambergreise. *From Animals*; Mosk, Castoreum. *II* Of compounds: *Water*, of black cherries, of Lilly-convally, Peony, Linden, Gilloflower, Primrose, Orange-flowers, Treacle-water. *Tinctures*, Elixir proprietatis, of Peony, of Sassafras wood. *Distilled oiles*. Of Rosemary, Marjerom, Sage, Rue, Ambar, Spike, &c. *Syrups*, of stechados, Betony, Gilloflowers, Peony. *Conserves*, of Betony, Sage, Rosemary flowers, Lilly-convally, Centorie, Stechados. *Preserves*; Nutmegs preserved, Indian Nut preserved, Preserved wallnuts. *Electuaries*, Confectio Alkermes, Treacle, Mithridate, Diacastoreum. *Spices* of Diambra, Dianthos, Diamoschum dulce, Diacastoreum.

II. *External heateing Cephalicks* are. I. Among *Simples*, al those wel nere, before related. Leaves of Rue, Running betony, upright vervaine, are exceedingly commended. II. *Among compounds* are, *Oyls*, of Sassafras wood, Oyle of Rue, Nard Oyle, Oyle of Baies, of Castorem. *Balsoms*, of Roses, of Rosemary, of Nutmeg, Marjerom, Sage, Ambar. *Emplasters*, de Betonica, de Muci lagnibus, de Baccis Laury.

Point. 2. *Of cooleing Cephalick* Medicaments.

Cephalick cooling Medicaments are likewise internal, or external.

I. *Internal* are, 1. Of *Simples*, the *Roots*, of Mandrake, the *Leaves* of Lettuce, Persiane, Plantane, Night-shade, Waterlillies, Henbane. *Flowers*, of Roses, white popie, Red-poppie, purple violets, waterlillies. *Seeds*, four greater and smaller cooleseeds. *Fruits*, of Gourd, Cucumbers. *Woods*, of Sanders. II. Of *Compounds*. Waters of Roses, Violets, Lettuce, Waterlilly, Night-shade. *Juices*; Opium, Vinegar of Roses. *Syrups*, of white poppie, red popie, Roses, Water-lillies. *Conserves*, of Lettuce, and of the flowers aforesaid. *Electuaries*, Diacodion simplex and compositum, Diaolibanum opiatum, Ladanum opiatum. *Speices*, Diatrion santalon de gemis frigidum, Diacorallium.

II. *External* are, I. Of *Simples*; *Leaves* of Willow, Vine, Venus Navil, Mandrake. The rest may be taken from the foregoing. *II.* Of *compounds*; Waters, of Henbane, Lettice, Water-lillies, Plantaine, Nightshade, Elders, Roses. *Juyces*; of the Birch-tree, House-leeke, &c. Oyles, of Poppeyes, Violets, Water-lillies, Lettice-seed, Mandrakes, Frogs. *Ointments* of Roses, Alablaster, Album camphoratum, Refrigerans Galeni, Populeum.

Article, 2. *Of Ophthalmick Medicaments.*

Ophthamlick or Eye-medicaments, are either Heating or Cooleing; and they are both external and internal.

I. *Internal* Heateing Eye-medicaments are. I. Of *Simples*, *Roots* of valerian, Fenel, Celondine, Navew, Rapes. *Leaves* of the greater Celondine, Fumitory, Eyebright, Pimpernel, Rosemary. *Flowers*; of Eybright, Celondine, Marygolds. *Seeds*, of *Anis*, Rue, Siler montanus, Turnips. *Spices*, Safron, Lignum-aloes. II. Of *Compounds*, *Waters* of Vervaine, Celondine the greater, Fenel, Vervaine, Rue, Centaury the less. *Syrups*, of Betony, Eye-bright. *Electuaries*, Treacle, Mithridate; *Conserves*, of Eye-bright, Rosemary-flowers, Betony, Sage, Gillowflowers, *Extract*, of Lignum-Aloes.

II. *External* are, I. Of *simples*, the *Roots* of Vervaine, Valerian. The *Leaves*, of which mention has been often-made. *Flowers* of Hypericon, Melilote, consolida regalis. *Seeds*, of Clarie or Clear-Eie, Line, Fenugreek. II. *Of compounds*, Aqua Saccarata, Calendule, Mellis, Mullein, Elder, Bread. *Ointments*, Pomatum Dialthea.

III. *Internal coolers* are, I. *Of Simples*; *Roots*, of Cichory, Straberry, Rapes. *Leaves* of Strawberry, Cichory, Plantane. *Flowers* of white-roses, *Violets*, Water-lillies. *Seeds*, of Quinces, white-poppie. II. Of *compounds*, *Waters*, Of Strawberry, Porslane, *Syrups*, *Conserves*, *Species*, &c. See among the Cephalicks.

IV. External *coolers* are. I. *Among Simples*, the *Leaves* of Dandelion, Oak, &c. The *Flowers*, see above. *Seeds*, of Beanes, Fleawort, Quinces. *Fruits*, Pulpe of apples. A sweet apple with Sugar. *Earths*, Bole Armeniack, Terra Sigillata. *Metalline Substances*, Cerus, Litturidge of Silver, Lapis

Lapis calaminaris, Saccharum Saturni, Spodium. II. Of *compounds*, *waters* of Blewbottles, Beanes, Gooſe-greaſe, Strawberries. *Mucilages*, of fleawort ſeeds, Mallow and Marſh-mallow ſeeds &c.

Article, 3. *Of Cheſt Medicaments.*

Point, 1. *Of Heating Breſt Medicaments.*

Cheſt Medicaments are likewiſe, either Heaters or Coolers, internal or external.

Internal Heaters are, I. *Of ſimples*, *Roots* of Enula campane, Squil, round Birth-wort, Colts-foot, Pimpinel, Scordium, Scabious, Dragon, Soap-wort. *Leaves*, of the five capillary Herbes, Horehound, Clamint, Scabious, Fluellen, Hedera terreſtris, Colts-foot, Botrys, ſpotted Lungwort, Hyſſop, Scordium, Two-penny graſs. *Flowers*; of Scabious, ſpoted lungwort, Hyſop, colts foot ſpike, ſea-graſs. *Seeds* of wild rue, and Garden rue, of mountaine ſiler, ſeſili or Marſelles, Chervil, Carduus, ſouthern-wood. *Fruites*; fat-figgs, Dates, Raiſons of the Sun, Indian Nut. *Spices*, Saffron Caſſia Lignea, Cinnamon. *Woods*, of Saſſafraſs, Guajacum, Orenge peels. *Earths* & *Gums*, Bole-armeniack, Gum Ammoniac, Myrrh, Terpentine, Choſe Frankincenſe. II. *Of Compounds*; *Waters*, of Hyſop, Horehound, Maidenhaire, Fluellen, Ground Ivie, Scabious, Carduus, Orice, Calves-graſs. *Spirit*, of Turpentine, Sulphur, Ground Ivy. *Diſtilled Oiles*, of Aniſe, Fennel, Mace, Sage, Creeping betony. *Tinctures*, Elixir proprietatis, Tinctura Sulfuris, Balſam of the ſame, or with oile of fenel, or of ſweet almonds. *Extracts*, of Saffron, Orice, Fluellen, Calamus Aromaticus, Ground Ivy. *Decoctions*, Decoctum pectorale, of dried Rapes, of an old Cock, of Lignum Guajacum. Syrups of Hyſſop, of Horehound, of Maiden hair, of the Juice of Ivy, of Fleuellen, of Scabious, of Tobacco, Oxymel ſimple, of Squils. *Lohoch*, of Colts-foot, of Fox-lungs, Lohoch ſanum and Expertum, de Paſſulis, de althea. *Conſerves*, of Bortys; Veronica, Pulmonaria maculoſa, Hedera terreſtris. *Electuaries*, Treacle, Mithridate. *Speices* diaireos ſimple, Diatragacanthum frigidum, Diapenidium, Diathamarum. *Fecula*, Aronis. *Flowers*, of Brimſtone, of Benzoin. *Trochiſcks* Bechici albi and nigri, Diaireos.

II. *External Heaters* are, I. *Of the ſimples*, althoſe in a manner, which we formerly muſtered. II. *Of componnds*; *Oiles* of Orice, Rue, Coſtus, Cheiri, Sweet almonds and bitter, Lillies, Line: *Fatts*, Gooſe-fat, which moſt penetrates, Deer-ſuet, Hens-greaſe. *Mucilages*, of Lin-ſeed, Fenigreek, marſhmallowes, with Safron. *Ointments*, of Marſh-mallowes, Pectoral ointment, and Unguentum Reſumptivum.

Point, 2. *Of cooling Cheſt-medicaments.*

Cooling Cheſt medicat s, are internal or external.

I. The *internal are*. I. *Of ſimples*; *Roots*, of Garden Endive, Lamb's-tongue-plantane, Polypody. *Leaves*, of porſlane, Water-lillys, Colewort. *Flowers*, of Violets, mallowes, Water lillys, Bugloſs, Cichory, red poppy, roſes. *Seeds*, the four great and ſmal cool-ſeeds, ſeeds of poppy mallowes, quinces, barly. *Fruits*; Hungarian & ſpaniſh prunes, mulberries, Jujubes, Iebeſtens, of water thiſtle, of ſweet briar dried. *Woods*; red ſanders, yellow ſanders, white Sanders, *Gum* tragant, Arabick. *Animals*; River crabs, whey, Goates-milk. II. *Of compounds*; Waters, of a capon ſimple and compound, of veale, mallowes, Violets, water-lillies, red popie. *Diſtilled oiles*; of purple violets, ſweet almonds. *Emulſions*, of white poppie, porſlane, cold ſeeds. *Decoctions*, Decoctum pectorale in the London Diſpenſatory, of a Capon. Syrups; of violets. Jujubees, Water-lillies, Gourds, red poppie, porſlane, Dialthœa Fernelij. *Lohoch*, de Pſyllio, of reiſins, of Cole ſtalkes, of porſlane of marſh-mallowes. *Electuaries*, Diacodium of the Phyſitians of Augsburge, new Treacle. *Conſerves*, of roſes, violets with boile-Armeniack, Spaniſh Lettuce. *Species*, Diatragacanthi frigidi, Diapenidij. *Roules*, of diatragacanthum frigidum, Diamargaritum frigidum, diapenidium, ſugar of roſes in Lozenges.

II. *External are*, I. *Of ſimples*; the *Leaves*, before aleadged. *Animals*, freſh may butter not ſalted, barrowes greaſe. *Mucilages* of Fleawort ſeeds, of Quince ſeeds, of Fenigreek, of marſh-mallowes. *Oiles*, of violets, white lillies.

Article, 4. *Of Cardiac or Heart-Medicines.*

Point. 1. *Of Heating Heart-Medicines.*

Cardiack medicaments are ſuch as are good for the Heart, whether given in, or outwardly applied; and they are alſo hot or cold.

Internal are. I. *Of ſimples*; *Roots* of Scordium, Doronicum, Angelica, Devils-bit, Maſter-wort, Vince-toxicum, Scorzonera, Dictamnus, Contrajerva, Tormentil. *Leaves*; of *Baum*, ſcordium, ſage, Tormentil, carduus, Scabious,

Scabious Fluellen, Cardiaca, Goates,Rue, Garden and wild Cresses. *Flowers*, of the Gilloflower, rosemary, scabious, Centaury, Baum, Tormentil, Borrage, Bugloss. *Seeds* of Citrons. Aurenges, Carduus, Rue, Lovage, Navew. *Spices*, Nutmeg, Cassia lignea, Safron, Cloves. *Woods*, Lignum Aloes. *Gums*; myrrh, Camphire, Benzoin, Mastich. *Sea-commodities*, Amber, Ambar-greise. *Earths and stones*. Bole-Armeniack, Terra sigillata Turcica and stringensis, Perles, Corals, fragments of the five precious stones. *Animals*, Bezoar stone, Harts-horne, Rhinoceros Horn, Bone out of the Heart of a Stag. II. *Of compounds*, *spirits* of Elder and juniper berries, baume, Elixir of Citrons with spirit of muscadine. *Distilled waters*, Of Carduus, baum, Citron-flowers, scabious, marigolds, scordium, Carbuncles, Cinnamon with Cordial flowers, *Bezoardica senerty*. *Distilled oyls*, of Cinnamon, Citron, baum, Ambar, Cloves, Nutmegs. *Tinctures*, of ambar, Elixir proprietatis. *Extracts*, of Angelica, Carduus, Citron peeles, Lignum aloes, Vince toxicum, Zedoary, Safron. *Essences*, the magistery of Cinnamon, Essence of Ambar, of Citrons, of Perles, of Vervaine. *Juyces*, of Citrons with their barks, of Pomgranates, Gelly of Harts horne, made with Vinegar of Harts horne and scordium. *Syrups* of Citron peeles, with and without musk and Ambar, Scordium, Carduus, Orenges, baum, Gilloflowers, Pomgranates, veronica, Borrage, Bugloss, Gallangal. *Conserves*, of Baum, Citron-flowers, Orenges, Gillowflowers, Marygolds, Borrage, Bugloss. *Preserves*, of Citron peeles, Orenge peeles, Indian Nut, Scorzonera roots, elecampane roots *Electuaries*, Treacle, Mithridate, Confectio Alkermes, Diascordium Fracastorij. *Species and pouders*, of Diamargaritum calidum, Diamoschi, Diambræ, Bezoardicus.

II. *External are*, I. *Of simples*, those which have been reckoned up before. 1. The compounds likewise are the same, viz. waters, juices, distilled oiles. Of these Epithemes, bags, Fomentations and Linements are made.

Point, 2. *Of cooleing Heart-medicaments.*

Cooleing Hart-medicaments are either Internal, or External.

I. The *Internal are*, I. *Of simples*; Roots, of Dandelyon, Sorrel. Leaves; of Sorrel, wood-sorrel, Water-lillyes. *Flowers*, of violers, Cichory, Water-lillies. *Seeds*, the four cold seeds. *Fruits*, of Rasberry, red Corants, Barberries, Citrons, Aurenges, Pomegranats, Sweet briar berries dried. *Woods*; the three Sanders. *Earths and medicines from Animals*, are those before mentioned. II. *Of compounds*; Waters, of Sorrel, Straw-berries, black Cherries, Quinces, Hart-Stones. *Juyces*, of Citrons, Pomegranates, Rasberries, Vinegar of Roses, Gelly of Harts-horn, made with Elder-flower Vinegar. *Syrups* of juyce of Citrons, of Pomegranates, of Wood sorrel, of juyce of Red Corrants, Strawberries, Lorrals, Violets. *Conserves*, of Citron flowers, of Aurenges, of the pulp of Citrons, of Roses, of Acacia. *Preserves*, of Red and White Corants, Barberies, Citron, Meates, Eglantine berries. *Species and Powders*, of Diamargaritum frigidum; Diatrion santalon, Magistery of Perles, of Corals.

Article 5. *Of Stomach Medicaments.*

Point 1. *Of hot Stomach Medicaments.*

Stomach medicaments are such as heat the stomach, or cool it; and that either taken inwardly, or outwardly applied.

Internal stomach-heaters are, 1. *Of simples*; *Roots*, of Pimpinel, Rhaponticum, Galangal, Zedoary, Calamus Aromaticus, Caryophyllata. *Leaves*, of Roman and common Wormwood, red and garden Mint, Cardiaca, Cichory, Agrimony, Marjerom. *Seeds*; the four greater and lesser cool seeds, Coriander, prepared. *Fruits*, Juniper berries, bay-berries, Aurenges, Indian Nut. *Spices*, Nutmeg, Ginger, Mace, Cloves, Cinnamon, Galangal, Cubebs, al sorts of Pepper, Cassia Lignea. *Woods*, Lignum Aloes, Guajacum, Citron Peels, Orenge Peels. *Gums*, of Mastich. *Sea-medicines*, Ambar, Ambar-greise. *Of Compounds*; *Spirits*, of Muscadine, of Rhenish Wine, of vitriol, of Mastich, of Wormwood, of Rosemary of Cinnamon, of bread. *Distilled Waters*, of Mints of Betony, Sage, of Cinnamon, with and without Wine, Elixir vitæ, of Baum with Wine, of Zedoary with Wine. *Distilled Oyls*, of Peper, Calamus Aromaticus, Cloves Mace, Cinnamon, Caraway, Fennel, Wormwood, Orenge Peels; Tinctures, Elixir Proprietatis, of Amber, of Corals, of Sassafras Wood. *Extracts*, of Lignum aloes, Wormwood, calamus aromaticus. *Essences*; of Rosemary, Citrons, Wormwood, Aurenges; whereunto belong, Salt of Wormwood, Juniper. *Syrups* of Cinnamon, Mints, Wormwood Betony, Mastich, Oximel,

Oximel ſcilliticum, Syrup of St. Johns-wort flowers. *Conſerva*; of Wormwood, Mints, Betony, Red Roſes vitriolated. *Preſerva*, of China Ginger, true Acorus, Galangal, Citron Peels, Orenge peels, Nutmegs, Indian Nut, Myrobalans. *Species and Pouders*, Aromaticum Roſatum, Diatrion pipereon, Diaxyloaloes, Imperial ſpecies, Stomach pouder of Brickmannus.

II. *External* are, 1. Of ſimples, ſuch as have been already reckoned up, and of *Gums*, Ladanum, Tacamahaca, Styrax calamites. 2. *Of Compounds*, there are beſides the aforeſaid, the *Balſams* of Peru, Camemel Romane. *Oyntments*, Stomach Oyntment, Martiatum magnum. *Emplaſters and Cataplaſmes*, Emplaſtrum Stomachale, de Cruſta panis, de Baccis Lauri, de maſtiche.

Point 2. *Of Stomach Cooling Medicaments.*

Cooling Stomach medicines, are alſo internal, and external.

I. *Internal.* I. *Of Simples*, *Roots of Cichory*, Sorrel, Aſparagus, Water-lillies. *Leaves*, Endive, Sorrel, porſlane, mirtle. *Flowers*, of Roſes, Violets, balauſtians. *Seeds*; the four cool ſeeds, barley, Sorrel ſeeds, Roſe ſeeds. *Fruits*, Citrons, Quinces, Orenges, Pomegranates, myrtle berries, medlars, Tamarinds, Corants, melons, and cowcombers. *Woods*, Sanders. *Stones*, Red corals. II. *Of Compounds*, *waters*, of Roſes, Acacia, Strawberries, plantane, porſlane, Quinces. *Juyces*, ſuch as are mentioned among cooling Heart-medicines. *Syrups*, of corals, Juyce of citrons, Juyce of ſowr Grapes, of Quinces, of Acacia, of pomegranates, Julep of Roſes and of Violets. *Conſerva*, of Roſes vitriolated, of Acacia Flowers, Oak-tops, citron-flowers. *Confects* of Cichory Roots, Quinces, Spaniſh Lettuce. Diacidonium ſimplex. *Species and Pouders*, Diatrion ſantalon, Diathodon Abbatis, Diamargariti frigidi.

II. *Externals* are, I. *Of ſimples*, thoſe we mentioned for inward medicaments. II. *Of compounds*; *Oyl* of Roſes, Violets, Quinces, Water-lillies, unripe Olives.

Article, 6. *Of Epatick Medicaments.*

Point. 1. *Of hot Liver Medicaments.*

Liver medicaments are hot or cold: and they are internal or external.

I. The *Internal* are, 1. *Of ſimples*; *Roots*, the five opening, greater and leſſer; of Pimpinel, wild Radiſh, Squills, rhaponticum verum, Rhubarb. *Leaves* of Agrimony, Eupatorium of Meſuæ, Kunigund is herb, Mountain Chamædrys, Centaury, water-creſſes, Betony, Liver-wort, Ground-pine. *Flowers*, of Centaury, Spike, Spinnanes, Elder, Liverwort, Hops. *Seeds* of Orenges, Citrons, Brookline, Seleli. *Fruits*, Aurenges, Ceſſons, Juniper berries. *Spices*, Cinnamon, Saffron, Acorus, Zedoary, Indian Spiknard, Caſſia lignea. *Woods*, Legnum aloes, Guajacum, Santalum citrinum. II. *Of Compounds*; *Spirits*, of Elder, Guajacum, Wormwood, Centory. *Waters*, of the Herbs aforeſaid. *Oyls*, of Sage, Orenges, Wormwood, Juniper berries, Mace, Nutmegs. *Tinctures*, Elixir proprietatis, of Lignum Saſſafras. *Extracts*, of Gentian, Carduus, Lignum aloes, Wormwood, Guajacum, Veronica, Calamus aromaticus. *Syrups* of Ground-Oak, Byzantinus Syrupus ſo called, of Hops, of Wormwood. *Conſerva* of Chamædrys, Sage, Wormwood, Fumitory, Roſemary Flowers. *Preſerva*, of Acorus, Citron peels, Citrons, Pimpinel roots. *Species and Pouders*, Diacurcumæ, Dialaccæ, Diaxyloaloes, Diamargariti calidi.

II. *The external* are, I. Of Simples, thoſe formerly alleadged. II. *Of Compounds*; *Oyl* of Roſes, Quinces, Water-lillies, unripe Olives. *Ointments*, Unguentum Santalinum, Refringerans Galeni, Roſatum Meſues. *Plaiſters*, Cerotum Santalinum, Diaphænicon frigidum, Emplaſtrum de ſucco Ciculæ.

Article 7, *Of Splenetick Medicaments*

Point 1. *Of hot Splenetick Medicaments.*

Splenetick Medicaments are hot or cold: and both are internal and external.

I. *Internal hot Medicaments* are, 1. *Of Simples*, the *Roots* of Fern which is counted an appropriate medicament, of Scorzonera, of Orice of Florence, of Polipody of the Oak, of Caryophyllata, of wild Radiſh. *Leaves*, of Scolopendrium, Harts-tongue, Scurvy-graſs, Tamariſk, Dodder, Hops, Fumitory, Brook-lime, Chervil, Galiopſis, Ground-Oak. *Flowers*, of Hops, Broom, Elder, Chamæmel, Fumitory, Liver-wort. *Seeds*, of Ash, Ammios, Water-creſſes, Chervil, Muſtard, Nettle, wild Parſenip, Scurvy-graſs. *Spices*, Saffron, Epithymum. *Woods*, of Saſſafras,

Lignum aloes. *Barks*, of Cappar Roots, middle rind of the Ash Tree, of the Elder and Tamarisk Tree. *Gums* of Ammoniacum dissolved in Vinegar of Squils. II. *Of Compounds*; *Spirits*, of Wine tartarized, of Centory, of vitriol of Mars, of Tartar simple and compound, of Brook-Lime, of Scurvy-grass, of Guajacum, of Juniper berries. *Waters*, of Dodder, Melissa compound, Hops, Watercresses, Scurvy-grass, Fumitory. *Tincture* of Mars. *Extracts*, of the Spleen of Jove, Scolopendrium, Harts-Tongue, Scordium, Fumitory, polypody. *Essences*, of Scurvy-grass, of Epythymum, of Chamædrys, Fumitory, Dodder, Cappars. *Syrups* of Scolopendrium Fernelii, of Broom Flowers, of Epithimum, of Scurvy-grass of Apples, *Forestus* his Syrup against the scurvy. *Conserves*, of scurvy-grass, scolopendria, broom-flowers, Fumitory, Veronica, Ground-Oak, Pimpinel. *Species*, of Dialacca, Diacurcuma, Dicapparum of Hollerius, Tartarus Vitriolatus.

II. *External medicaments are*, I. *Of simples*, those already reckoned, and of *Gums*, Ladanum, Tacamahaca, styrax. II. Of *compounds*, besides the forementioned, there are *Balsams*, of Peru, of Romane Chamæmel, of Mastich. *Unguents*, Unguentum stomachale, Martiatum magnum. *Plaisters and Cataplasmes*, Emplastrum stomachale, de Crusta panis, de Baccis Lauri, de Mastichæ.

Point 2. *Of cooling Stomach-medicaments.*

Also cooling stomach medicaments, are either internal or external.

I. The *Internal*, are, *I.* Of *Simples*; the *Roots* of Cychory, sorrel, Asparagus, water-lillies. *Leavs*, al sorts of Endive, sorrel, portslane, myrtle. *Flowers*, of Roses, Violets, Balaustians. *Seeds*, the four greater cool seeds, barley, sorrel, and Rose seeds. *Fruits*, Citrons, Quinces, Orenges, Pomegranates, myrtils, medlars, Tamarinds, red and white corants, melons, cucumbers. *Woods*, sanders. *Stones*, red-coral. II. *Of compounds*, *waters* of Roses, Acacia, strawberries, Plantane, portslane Quinces. *Juyces*, those which have been mentioned among the cooling Heart Medicaments. *Syrups*, of corals, Juyce of citrons, sour Grapes, Quinces, Acacia, Pomegranates, Julep of Roses, and Violets. *Conserves* of Roses Vitriolated, Flowers of Acacia, Tops of Oak, citron-flowers. *Preserves*, of Cichory roots, of Quinces, of Spanish Lettuce, Diacydonium simplex. *Species and pouders*, Diatrion santalon, Diarrhodon Abbatis, Diamargaritum frigidum.

II. *External* are, I. *Of simples*, those already reckoned among the internal medicaments. II. *Of compounds*, oyl of Roses, violets, Quinces, of unripe Olives.

Article, 6. *Of Liver-medicaments.*

Point, I. *Of Heating Liver medicaments.*

Liver medicaments are heating or cooling. And the former are internal or external.

I. The *Internal* are, 1. *Of simples*; *Roots*, The five opening roots greater & lesser, roots of pimpinel, wild-rediish, squil, Rhapontick, Rhubarb. *Leaves*, of Agrimony, of Eupatorium of Mesue, of true mountaine ground oake, Centory the less, Water-Cresses, Betony, Liver wort, ground pine, Flowers of Centory the less, spicknard, Squinanth, Elder, Liverwort, Hops. *Seeds* of orenges, Citrons, Brooklime, Seseli. *Fruits*, Orenges, Raysons, Juniper berries. *Spices*, Cinnamon, Safron, Acorus, Zedoary, Indian spike, Cassialignia. *Woods*; Lignum Aloes, Guajacum, Santalum citrinum. 2. *Of compounds*; the *Spirit* of Elder berries, Guajacum, wormwood, Centory the less. *Waters*, distilled of the foresaid Herbes. *Oyles* of sage, Orenge-peels, wormwood, Juniper, Mace, Nutmegs. *Tinctures*, Elixir proprietatis, of Lignum Sassafras. *Extracts*, of Gentian, Carduus, Lignum aloes, Wormwood, Guajacum, Veronica, Calamus aromaticus. *Syrups* of Ground oake, Byzantinus, Hops, wormwood. *Conserves*, of Ground-oake, Sage, Wormwood, Fumitory, Rosemary Flowers. *Preserves*, of Acorus, Orenge-peeles, Citron peeles, Citron pap, pimpinel rootes. *Species and pouders*, Diacurcuma, Dialacca, Diaxuloaloes, Diamargaritum calidum.

II. The *External* are, I. *Of simples*, those before specified, of which decoctions, Bags, and fomentations, may be made. *Ointments*, are Unguentum Nardinum, Martiatum. *Plasters*, Diaphænicon calidum, de Baccis Lauri, Oxycroceum.

Point, 2. *Of Liver-coolers.*

Liver coolers are either internal or external.

I. The

I. The *internal* are, *I. Of Simples*; Roots of Aſpragus, Graſs, Water lillies, Strawberry, Sorrel, Cichory, *Leaves*, of Sorrel, Strawberry, Aſparagus. Sowthiſtle, Garden Endive, porſlane, Lettice, Water lillie. *Flowers*; of Roſes, Cichory, Bugloſs, Balauſtians, Water Lillies, Acacia, red-poppy. *Seeds*, the four great and ſmal coole ſeeds, barley, white popy, violets. *Fruites*, Pomegranates, &c. which we have reckoned among ſtomach-coolers. See *Gums and precious ſtones* in the ſame place. *From Animals*, ſhavings of Harts horne and Ivory, whey of Goates-milk. *II. Of compounds*, Spirit of Vitriol, acid ſpirit of Sulphur, of ſalt. *Diſtilled waters*, of Cichory, Sorrel, Water Lillies, Strawberries. *Syrups*, of the juyce of Cichory, Endive, Sorrel, wood-ſorrel, juyce of Citrons, and the reſt reckoned among cooling ſtomach medicines. *Conſerves*, *Preſerves*, and ſpecies, ſee in the ſame place.

II. *External* are, I. *Of ſimples*, the ſame fore-cited. II. *Of compounds*; *Oiles* of Roſes, Quinces, Water Lillies, unripe olive. *Ointments*, of Sanders, cooling Ointment of *Galen*, Unguentum roſatum of Meſue. *Emplaſters*, Cerotum ſantalinum, Diaphenicon frig[illegible] of the juice of Hemlock.

Article, 7. *Of Splenetick Medicaments.*

Point, 1. *Of warming ſpleen medicaments.*

Spleen medicaments are, either heating or cooling, eachof them internal or external.

I. *The internal Heating* are, I. *Of ſimples*; *Roots*, of Ferne, which are appropriate, of Scorzonera, of Florentine orice, of polypody of the Oake, of Avens, of wild radiſh. *Leaves*, of true ſcolopendrium, Harts-tongue, Scurvygraſs, Tamariſk, Dodder, Hops, Fumitory, Brooklime, Chervil, Galiopſis, ground oake. *Flowers*, of Hops, Broome, Elder, Fumitory, Liver-wort. *Seeds*, of Aſh, biſhops-weed, Watercreſſes, Chervil, muſtard, Nettle, wild parſnip, Scurvy graſs. *Spices*, Safron, Epithymum. *Woods*, Saſſafrs, Xyloaloes. *Barks*, of capar roots, middle rind of aſh-roots, Elder roots, Tamariſk roots. Gum Amoniacum diſſolved in Vinegar of ſquils. II. *Of compounds*; *Spirits* of wine tartarized, of Centaury, of vitriol, of Mars, of Tartar ſimple and compound, of watercreſſes, of Scurvy graſs, of Guajacum, of juniper berries. *Waters*, of Dodder, of baum compound, of Hops, of Water-creſſes, of Scurvy-graſs, of Fumitory. *Tinctures* of Mars. *Extracts*, of Joves Spleen, Scolopendrium, Harts-tongue, Scordium, Fumitory, Polypody. *Eſſences* of Scurvy-graſs, Epithymum, Ground-oake, Fumitory, Dodder, Capar[illegible] *Syrupps*, of Ceterach or Scolopendrium of Fernelus, of Epithymum, of Scurvy-graſs, of Apples, the Scorbutick Syrup of *Foreſtus*. *Conſerves*, of Scurvy graſs, of Ceterach, of Broom-flowers, of Fumitory, of Fluellen, of Chamædrys, Pimpinel. *Species*, of Dialacca, Diacurcuma, Diacapparum of Hollerius, Tartarus Vitriolatus.

II. *External* are, I. *Of ſimples*, thoſe before mentioned. II. *Of compounds*, *Oyls*, of Capars, Orice, Cheiri, Rue, Peach kernels, Almonds, Scorpions. *Ointments*, of dialchea, Martiacum, de Arthanita, de Ammoniaco, Spleneticum. *Emplaſters*, of Melilote, diachylum ireatum, Emolliens Foreſti, diaſulphuris Rulandi.

Point, 2. *Of cooling Spleen-Medicaments*

Cooling Spleen Medicaments, are internal or external.

I. The *internal* are, I. *Of ſimples*. *Roots*, Of Cichory-like plants, and of which mention is made, among liver Medicines. *Leaves*, *Flowers*, *Fruites*, *Seeds*, may be alſo fetcht from thence. To theſe you may ad the barks of willow roots. II. *Of compounds*, are the ſame likewiſe, to which you may ad medicaments prepared of tartar and of ſteel. *Trochiſks* of Sanders, ſpodium, Carabe, Barberries.

II. The *external* are, I. *Of ſimples*; *Roots*, of Mandrake. *Leaves* of white henbane, Hemlock, Willow, Water-lillies. II. *Of compounds*, ſee thoſe reckoned among cooling Liver-Remedies.

Article, 8. *Of Nephritick Medicaments.*

Point, 1. *Of heating Nephritick, or kidny-remedies.*

Nephritick Medicaments are either heating or cooling, both are internal or external.

I. *Internal heaters* are, I. *Of Simples*; *Roots* of reſtharrow, Saxifrage, Filipendula, Pimpinel, Lycoris, Marſh-mallow, Polypody, Lovage. *Leaves* of maiden haire, Walrue, Fluellen, Chervil, Nettle, ground-ivy, Pellitory of the wal, Feverfew, Reſtharrow.

Flowers; of Broome, Spike, Elder, Betony, the yellow of violets, St. Johns-wort flowers. *Seeds*, the four greater and leſſer hot ſeeds, perſly, gromwel, Saxifrage, Cherry-ſtone-kernels, Peach-ſtone-kernels, Oake of Jeruſalem, Beanes. *Fruits*, Juniper berries, Ivy-berries, winter-cherries, bitter Almonds, Sweet-briar berries, Corants. *Spices*, Caſſia lignea, Spica Indica, Safron. *Woods*, Lignum Sanctum, Nephriticum, Tamarisk. *Gums*, Terpentine, Myrrh, Maſtich, Olibanum. *Minerals*, Lapis judaicus, Lapis Nephriticus. *From animals*, the ſtones of Perches, Crabs-eyes, Earth-wormes, Eggs-ſhels, Jawes of a Pike. II. *Of compounds*, *ſpirit* of ſalt, Terpentine, Elder berries, Strawberries, Cherries, Vitriol, Feverfew. *Diſtilled Waters*, of Reſt-harrow, ſaxifrage, Perſley, Hedera terreſtris, Alkekengy, Matricaria, Elder flowers. *Oyls* of Orenges, Juniper, peach-kernels, cherries, bitter almonds. *Tinctures*, Elixir proprietatis, of Ambar. *Extracts*, of veronica, Ground-ivy, Lycorice. *Syrups*, of Maiden hair of Fernelius, Byzantinus ſo called, of dialthea, Oxymel. *Conſerves*, of Hedera terriſtris, veronica, Sweet briar-berry. *Spices and pouders*, Lithontripticon, Tartarus Vitriolatus, Reſtharrow-Salt, ſalt of Beane ham, chervil, Nettles.

II. *External* are, I. *Of ſimples*, ſuch as were before aleadged. II. Of *compounds*, *Oiles*, of ſcorpions, white lillyes. *Ointments*, Martiatum, Agrippæ, Aregon, dialthea. *Emplaſters*, diachylon ſimple, Oxycroceum, Melilote.

Point, 2. *Of cooling Nephriticks.*

Cooling Nephritcks are internal, or external.

I. *Internal* are, I. *Of ſimples*, *Roots* of Graſs, Strawberries, Water-Lillies. *Leaves* of Porſlane, Willow, Venus Baſin, Hearts-eaſe, Lettuce. *Flowers*, of Water Lillies, Violets, Roſes, Beanes. *Seeds*, the fouer cold, white poppy ſeed, ſeed of purple violets. *Fruits*, ſee among the ſtomach and liver coolers. *Stones*, Chriſtal. II. *Of compounds*, *Waters* of Strawberries, Violets, barly, porſlane, Lettuce. *Juyces*, of Citrons, Strawberries, porſlane. *Syrups*, of Water Lillies, Strawberries, porſlane, ſyrup of the juyce of Citrons. *Conſerves*, of Acacia, violets, porſlane.

II. *External* are the ſame, to which ad *of the compounds*, *Oyls* of Roſes, water lillies, ſugar of Lead. *Unguents*; The Ointment of Roſes of Meſue, *Galens* cooling Ointment.

Article, IX. *Of Uterine Medicaments.*

Point, 1. *Of heating Uterine or Womb-Medicaments.*

Uterine Medicaments are either Heating or Cooling, and they are internal or external.

I. The *internal* are, I. *Of ſimples*, *Roots*, of Peony, Valerian, Laſerpitium, Angelica, Pimpinella, Bryony, Ariſtolochia rotunda. *Leaves*, of Mugwort, Rue, round Birth-wort, Mercury, Fever-few, Sabine, Betony. *Flowers*, of Betony, Chery, Elder, St. Johns-wort, Stechados, ſpikenard. *Seeds*, foure hot, mountaine oſier, red vetches, Roſemary, peony. *Fruits*, Indian Nut, Juniper Berries, Orenges. *Spices*, Cinnamon, Caſſia lignea, Nutmegs, Cubebs, Graines of Paradiſe, Safron. *Woods*, Lignum aloes, Aſh, Guajacum. *From Animals*, Caſtoreum. II. *Of compounds*, *Waters*, of Mugwort, Hyſop, Elder, Cinnamon, Zedoary, yellow ſtock-gillo flowers, betony with wine. *Oyls*, of Cinnamon, Angellica, Ambar, Cloves. *Tinctures*, the Uterine Elixir of Crollius, omitting ſalt of mother of perle. *Extracts*; Hyſtericum majus and minus of Quercetanus, of the Liver and Splene of an Oxe, of Baume, of Lignum Aloes. *Syrups*, of Mugwort, Fevertew, Orenges, Baume, Cinnamon. *Conſerves* of Marjerom, Betony, Baum, Roſemary, Marygolds. *Preſerves*, of Acorus, citron peeles, Orenges, Nutmegs, Zedoary. *Pouders*, Diacalamint, Diaxyloaloes, diacinnamomum.

II. *External* are, I. Of ſimples, the greateſt part of the foreſaid, to which may be added, *Gum* Olibanum, ſtorax, bdellium, myrrh, Ladanum, Aſſafetida, Galbanum, Opopanax, Sagapenum, Ambar. *From Animals*, Caſtoreum, civet, Musk. II. *Of compounds*, *Oyls*, of cheiri, Angelica, Rue, Caſtoreum, Nard oile, Scorpions, Nutmegs. *Unguents*, of Bay-berries, Gum Caranna, ceratum matricale, or of Galbanum, &c.

Point, 2, *Of wombe-cooling Medicaments.*

Wombe cooling medicaments are alſo either internal or external.

I. The *Internal* are, I. *Of ſimples*, *Roots*, of

of biſtort, comfery. *Leaves*, of Strawberry, Shepherds-pouch, Vinca pervinca, Plantane, Oake, great comfry, Porſlane, Nettles, looſeſtrife. *Flowers*, of Roſes, Quinces, Balauſtians, Water-Lillies, Looſe-ſtrife, St. Johns wort, Comfery, Willow. *Seeds*, of porſelane, Plantane, Henbane, white-poppy. *Fruits*, of Acacia, Pomegranates, Medlers, Myrtils. *Woods*, Sanders. *Gums*, Dragons-blood. *Earths and miniralls*, Bole Armeniack, Red corralls, Perls, Chriſtial. II. *Of compounds*, they are ſuch as are made of the foregoing ſimples, and may be known by what has been already ſaid.

II. The *external are* the ſame we alleadged in the ſimples. The compounds have been for the moſt part declared, in the Nephriticks and Hepaticks.

Chap. 7. *Of vegetable Medicaments, referred to the ſeven Planets.*

Planetarie Medicaments are they, which according to the opinions of ſome Men, have received their virtues and names from the Planets, and depend upon them in their operations.

They are as manifold as there are planets, viz. *Saturnine, Jovial, Martial, Solary, Venereal, Mercurial, Lunary.*

I. Thoſe are termed *Saturnine* which are of an horrid aſpect, ingrateful or venemous ſmel, ſtiptick taſt, leane ſhape: and they grow in moiſt places, filthy and woody, ſolitary, and dark; and of this kind are woolfs-bane, Agnus caſtus, Calves-head, Smallage, Finger-fern, Star-wort, orach, Blites, Shephards pouch, Hemp, Cappars, Hemlocks, Cumin, Cypreſs, dodder, Epithymum, Horſe-taile, Fern, Fumitory, Hellebore, Henbane, Great dock, lupines, Mandrakes, Moſs, Opium, pine, Polypody, Sloetree, Rue, Willow, Cetrach, Scrophulary, Sena, Serpentaria, ſeſely, Nightſhade, Tamariſk, Eugh, Vervaine.

II. *Jovial* are ſuch as have a pleaſant taſt and ſmel, red or blewiſh flower, an olive ſubſtance, plaine leaves, and delighting in fat places: ſuch are Cloves, Cherries, ſtrawberries, Olive-trees, Betony, Flaxe, centaury, Barberyes, Red corants, Avens, Arſmart, Fumitory, Teucrium, Mullin, Comfery, Galangal, Birch, Ground oake, Almonds, Madder, Prunella, Rhubarb, Looſe-ſtrife, Borrage, Bugloſs, Mulberries, wheat, Thorow waxe, Sophia, Pomegranates, Violets, Coral.

III. *Martial* are of a pointed rough ſhape, of a cauſtick taſt, a color tending to redneſs, & they love dry places, ſuch as are Nettles, Thiſtles, Reſtharrow, Eſula, Rhamnus, bramble, Flammula, Onions, Leeks, Garlick, Radiſh, Peperwort, Wolfes-bane, Henbane, Arſmart Aſparagus, baſilicon, &c.

IV. *Solar*, are of a regal forme, of colour yellow or orenge tawny, of fragrant ſmel, pleaſing taſt, and love ſunny and meridional ſituations, *Such as are*: the Flower of the Sun, Safron, Celondine, Baum, Motherwort, Gromwel, Roſa ſolis, lillies, Gentian, laurel vine, Elecompane, St. Johns wort, Aſhe, Marygold, Gold-flowers, Roſemary, Mints, Citronwort, and ſome others.

V. *Venerial* are ſuch as have a white flower, a clammy humor, a ſweet taſt, a wanton ſmel, ſhape of leaves ſmooth not jagged: *Such as are* Satyrium, Vulgar peaſe, boletus cervinus, Cuckow-pintel, pine and oake-apple, Parſnips, Water Lillies, Daffodillies &c.

VI. *Mercurial* are, ſuch, as have a various color of the flowers, bear cods, and are bred for the moſt part in a ſandy place; *ſuch as are*, Beanes, Chamemel, Trefoil, daiſies, juniper, Wallnuts, Haſils, Elders, Dragons, Monywort, Lungwort, Aniſe, Cubebs, Marjerom.

VII. *Lunary*, are ſuch as have thick juycie leaves, of a watry or ſweetiſh taſt, they ſoone grow to their juſt magnitude, and love marriſh watry places; *Such as are*, Coleworts, Gourds, Melons, Pepons, Mandrakes, Papaver erraticum or Red poppy, Lettuce, Rapes linden tree, Duckweed, &c. See hereof *Etzlerus* in his Isagoge-Phyſico-magico-medica, and *Helvicus*, Dietericus de Novo orbe; alſo *Toxita* his Cornu ſalutis, and *Carrichterus* de plantis. Alſo in *Turniſerus*. you ſhal find many things.

THE

THE FOURTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Title, *I. Of the Method of Healing in General.*

THE Method *of Healing is an Art of Inventing by help of Indications, ſuch Remedies as are apt to heal the Infirmities of Mans Body.*

There are therfore three things therin obſervable: the Indication, Indicant, and Indicatum.

I. The *Indication* is the Method of finding out from the Nature of the Indicant, the Indicated Remedy, which the Indicant is found to require, for the attainment of his End. And this is to be underſtood of the Indication habitually taken, viz. as it is in the mind of the Artificer. But if it be conſidered in its own Nature as it is in the Indicant, it declares nothing but a certain relation of the Indicant to the Indicatum, as of a ſigne to the thing ſignified, or an Antecedent to its Conſequent. In which reſpect *Galen* calls it the ſtrength of Conſequence.

II. The *Indicans*, is that which of it ſelf and its own Nature ſollicites the Phyſitians help, requrires ſome profitable medium to attaine a good propounded, and affords a true curative Indication. Now this ought to be, in the firſt place, 1. Known to the underſtanding. 2. An Agent; and to be carried out to good by its natural Inſtinct. 3. To be in the body of man. 4. To be permanent, and not to have its eſſence in fiery or a momentary tranſaction. 5. That, inaſmuch as it is one, it indicate only one thing, that it indicate or hint the ſame by its own nature, and that as being but one thing, it can have but one Nature. Such a true and ſingle indicant, is neither the diſeaſe, nor its cauſe, nor any Symptom; but the ſtrength, virtue and faculty of a body cureable, or the virtue and faculty ſanative in a body ſanable, and that active, which is naturally moved to health, as to its perfection. *Not the Diſeaſe*: For that is the primary indicant to which al things are referred; the ſame is the Condition of Ends and indicants. *But* the Phyſitian does al for Healths, and not for the diſeaſes ſake. The indicant is permanent in the body. *But* the diſeaſe does not ſtay, without its own Homogeneal Cauſe. To the indicant we owe an helper, becauſe it indicates for its own ſake. *But* a diſeaſe not for its own, but healths ſake, &c. *Not the*

the Cauſe, for it is not every kind of helpe, but a curative help which we ſeek after. The Cauſe as it intends the corruption of mans body, cannot indicate or hint any thing but the corruption thereof. *Not the Symptom*, becauſe it abides not. The *Forces of the Body are the only and primary indicant*; For you muſt firſt conſider the Forces and ſtrength of the Body, before you ſet upon the Cure. Lighter diſeaſes are to be committed to Nature; dangerous ones and ſuch as are towards their Criſis, are not to be tampered with; deſparate ones admit no cure. The *forces* of the body muſt not be quite dejected and worſted, for then nothing is indicated; nor yet *luſty and ſtrong*, for then they can do al of themſelves. Oft times nature brings the morbifick matter through the middle of a bone, and makes an impoſthume, caſts out the ſanies of the lungs, by urine or ſtoole, expells the ſtopt courſes by the Eyes, the holes of the teeth the toes of the feet, &c. But they are the *tottering* forces of the body, which require help, and conſequently indicate.

III. The *Indicatum*, or Remedy hinted, is that which ought to help the diſeaſed body; ſafely without danger of a relapſe or injury to the body; pleaſantly without nauſeouſneſs and overmuch trouble; and quickly without any delay. Touching which obſerve, 1. That none reduces health by its own proper force, but by the Aſſiſtance of the inbread Heat, or nature it ſelf, ſo that Nature does the work properly and formally, the remedy only as her inſtrument or Handmaid. 2. That it is not contrary to a diſeaſe, if it be ſimply conſidered as an Entity of ſuch or ſuch a nature: but it is contrary, as it is joined to an animate body, and actuated by nature. Yet not primarily and of its own nature, but obliquely and ſecondarily; both becauſe it aſſailes the Diſeaſe with forces which are not connatural to it; alſo becauſe vomiting is often cured by vomiting, looſeneſs of the Belly by purging, ſtifneſs of the whole body called *Tetanus*, by throwing cold water thereupon; and finally; becauſe diſeaſes are likewiſe commonly cured by their cauſes. So worms are killed by the pouder of worms, the flux of arterial blood by ſome drop of blood drunken, or the pouder of dried blood ſprinkled on. 3. Their *Uſe*, in due quantity time and place, to which ſome ad the manner.

Title, II. *Of the Method of healing in ſpecial.*

Chap. 1. *Of the Additional Method.*

SO much for the Method of healing in general: the ſpecial Methods follow; and they are Additional and Abſtractive.

The Additional Method, is that which ſupplies as much as is wanting in the powers of nature, by Augmentation and multiplication of the Virtue.

I. It is *Neceſſary*, becauſe, ſeeing no diſeaſe happens but the faculty of the body is hurt: yea & the form of ſickneſs conſiſts in the inabiſity to act, ſo that the ſaid inability being ſupplied, the form likewiſe of the diſeaſe is reduced to the habit of Health.

II. The *Indicant* in this Method, is the Sanative or healing Principle in the Patient; which is neither the *Soul*, becauſe that is alwaies like it ſelf ſubject to no violence or hurt of ſickneſs: nor the *Body*, becauſe that is meerly paſſive, and indifferently diſpoſed to ſickneſs or health; but it is *the innate Heat*, which is rightly tearmed the true, proper, and immediate ſubject, wherein the curing faculty reſides. For by it, verily, the parts do live and act. Therefore *Ariſtotle* cals it the ſpiritual Warmth, and implanted Heat, and *Hypocrates* terms it the Soul of Man, which is alwaies produced and removed even to his Death. This tempers and tunes the whol body, and moderates al the offices and miniſteries thereof; reduces al exceſſes to a geometrical proportion, and ſuch an equability as is convenient to Nature; and becauſe it congregates and collects things homogeneal and ſeparates things heterogeneal, therefore it ripens al crudities, ſeperates al impurities, and tempers and unites the dry with the moiſt.

III. *Indicatum*, the thing *Indicated* or Remedy in this Method, is ſomwhat that is like and familiar to the Indicant. Like will to its like, and cleave to it, but a thing diſagrees and ſeparates from its unlike. Now this Remedy according to the definition of *Petreus*, is a ſpiritual Quinteſſence, that is to ſay, a certain moſt thin, and moſt ſubtile and delicate ſubſtance, as it were of a middle nature between matter and form, Soul and Body, and that different from the Elements and their Qualities, perfuſed with a Celeſtial Heat, and underpropped with a primigenial moiſture, furniſhed

furnished with many noble vertues, implanted in the first Creation by God, together with the form and seed, that it might be the proper and immediate Receptacle and Instrument of the form, by which the Individual, the temper of the Qualities assisting, might be preserved in a sound condition, and the Integrity of al its Functions, the Species propagated, &c. See what he saies in his inaugural dissertation, and my Father in Law *Vechnerus* in his Anacephalæosis typica Therapeutices Catholice, whose steps we tread in, at present.

Chap. II. *Of the Abstractive Method in general.*

The *abstractive* Method is considered, either in general or in special. *Considered in general, it teaches us to free the sanative Power of the Body from al Impediments, and to advance it into action.*

I. The *Indicant* in this Method, is the Nature of Mans body wanting health, hindred and provoked: from which the Causes and Diseases are to be taken away. The End is their removal.

II. In the *things indicated*, or Remedies taking away, we are to consider, the *Matter*, *Forme*, and *Use* or *Administration*.

1. *In respect of their Matter*, they ought to be commonly opposite to the Disorders, at least caulally and effectively. And therefore there are so many differences and kinds of them, as there are of preternatural dispositions of the Body, according to the order whereof, they are elegantly distinguished, as I shal hereafter declare.

II. The *Formality* of these abstractive Remedies, is, their ability to assist the Healing Vertue of our bodies to shew it self in its operations. And they are the best which approach the neareſt to the Natural Constitution, and help the innate heat, or no waies hurt the same, or which according to nature do agree with a body that is in a capacity to be healed. Here respect must be had to the strength of the Body, and to such things as agree according to nature, with a body capable of healing, and restrain the latitude of the Remedy, to some *certain Subject*, and Part affected. Touching the *Forces of the body*, observe, 1. That not only they are to be considered, as they are at present, but as they like to be after Medication or use of Remedies. 2. That such as are lusty, may bear stronger medicines. 3. That such as are in a feeble condition, cannot without great danger, endure medicaments that stir much; and that they require alimentary and ballamick Medicaments. 4. That being spent and exhausted, they must be repaired by ballamick medicaments. 5. That being overpressed with plenty of blood & humors, & therefore invalid, they require a sudden, and consequently a plentiful evacuation. *Concerning the Subject* we must examine the Nation, Sex, Age, Region, Air, State of the Heavens, the times of the year, and of the diseases. *Propriety of the Patients temper*, because it has many singularities in it, and there is no knowledge of singular things because infinite, it requires diligent inquisition, into the Education, Parents, Diet, use of the things called Nonnatural, Diseases, Medicaments. Natural Inclination, which carries with it, the Imagination, but especially the Customes of the Party under Cure. Touching the *Part*, observe, 1. That it requires a Remedy appropriate, or such an one, which respects the same by some propriety, to which consideration also vehicles belong. 2. That the principal parts especially be so handled, that they come not by resolution of their fibres and strength, to decay and perish. 3. That their Qualities and Tempers are likewise to be observed. 4. Also their scituation, connexion, their convenient sensation which rejects sharp things, &c.

III. The *Use* or administration of Remedies is circumscribed in the Consideration of *Quantity*, *Time*, and *Place*. 1. Touching Quantity when the Question is, whether little or much; or, in what weight and dose: the *former* is hinted by the Quantity of the cause or disease. Therefore we must first exactly know what things are according to nature. So much must be taken from the body, as is superfluous; yet must we not over do. And we must know that 'tis alwaies more safe, in a doubtful proportion, to fal rather too short, than to exceed. Touching *this matter* take these rules: 1. Infirmities which have taken deep root, need stronger remedies, than such as are slight. 2. In a mild infirmity we must do al at once and suddenly, and so we must in an extream and dangerous sickness, because it quickly finishes its course, and quickly kils. 3. In indifferent and cronick diseases, we must endeavour to expel them by little and little, and slowly; but we must withal take heed, least while we go about to quench a mighty flame with a smal Quantity of water,

we

we make the fire burn the faſter. II. The *Time* reſpects, 1. *Seaſonableneſs*, of which note, 1. That we muſt then act, when the Patient can beſt bear it. 2. That the motion of nature muſt be alwaies furthered, unleſs it be dangerous. 3. Turgent humors, muſt be drawn out the ſelf ſame day. 4. About the beginnings and ends of Diſeaſes, ſtronger medicines may be given, becauſe then al the ſymptomes are weaker; in the ſtate it is better to reſt, becauſe then al is at the height. 5. The Conſtitutions of the Heavens, that is to ſay, both the Conjunctions, Riſings and Settings of the Stars, as alſo the great changes of times, eſpecially in cronical ſickneſſes, are to be conſidered, &c. II. Method or good order in the plurality of things to be done. Here obſerve, 1. That disjoyned Diſeaſes, do require diſtinct Remedies, ſo that they may be cured either ſeverally, or both together. 2. That connex and complicated diſeaſes, if they conſent, may be cured either together or apart, and you may begin with which you pleaſe; and if they diſſent, we muſt oppoſe both with a kind of mediocrity; if they partly agree and partly diſagree, we muſt begin with that which, though the Cure of it do not help, yet it hinders not the Cure of the other. 3. In al diſeaſes, whether they be disjoyned or conjoyned, reſpect muſt be had above al things, both of that which urges, and of the Cauſe or Concomitancy; ſo that we muſt firſt cure that which urges moſt, and that upon which the reſt depend. Under the Motion of Cauſality or Concomitancy come, both al *Impediments*, without the removal whereof no Cure proceeds; as alſo the *Foments*, upon which the other hurts, being linked and chained together, do depend in their production. Now that is ſaid to *Urge*, which exceeds the other hurts of the body, either in magnitude and malignity, or in the vehemency and celerity of the the hurt they do. III. *Touching* the Place, theſe things are obſervable. 1. That the inclination of nature and conveniency of the Veſſels muſt be obſerved. 2. That the matter muſt be voided the neareſt way, by ignoble parts; by a natural channel; and by waies cleer and direct. But of theſe things, God-willing, I wil treat moſt methodically and accurately, in my Syntagona.

Chap. 3. *Of the abſtractive Method in Special, and firſt of the taking away of Cauſes.*

Article, I. *Of the taking away of Cauſes which offend in Quantity.*

THe Taking away of Cauſes reſpects both Humors offending in Quantity, Quality, Motion and Place, and likewiſe winds themſelves: of which notwithſtanding, they are not ſo exactly to be conſidered and by themſelves, but that they may ſomtimes be compſicated together.

The taking away of Cauſes which offend in Quantity, is performed by Blood-letting, *Fri-ctions*, *Faſting*, Bathing, *Hæmorrhoides*, *Monthly Courſes*, *Scarification*, *Cupping-glaſſes, and Horſe-leaches.*

I. Touchig *Blood-letting* theſe things occur conſiderable. 1. *Whether it is to be done or no.* I. A Vein is *not to be opened.* 1. If the forces of the body languiſh, as being changed by Fevers, long diſeaſes, diſtemper of the ambient air or other things, ſome venemous quality, immoderate evacuation of Humors, Labour, Grievous Pain, and paſſions of the Mind. 2. If a Woman be ſickly, and of a whitiſh color. 3. If it be a child, becauſe its heat is apt to diſſipate. 4. If the Patient be over fearful. 5. If the diſeaſe be in its higheſt vigor, which attains the Criſis. 6. If a crude diſtemper afflict, without fault in the blood, and it may otherwiſe be amended. 7. If crude juyces abound in the whol Body, eſpecially in the Summer time, the ſtomach being weakned, the body ſoft, and a fever be joyned. 8. If a crude and cold juyce afflict the mouth of the ſtomach, whence an heart-burning proceeds, by reaſon of the vicinity of the Heart. 9. If boyling juyces abound in the whol body, which waſt the Spirits, and being carried into the ſtomach Cauſe a deliquium. 10. If venemous diſeaſes afflict the body. 11. If a critical Evacuation were ſufficient. II. *A vein may be opened*, 1. If the forces of the body languiſh, being oppreſſed. 2. If the diſeaſe be great, which afflicts vehemently, for a ſhort time, with a feveriſh heat and working of the blood. 3. Yea in a perſon of ſeventy years of Age, provided the pulſe be conſiderable, and the nature of the diſeaſe, and plenty of blood require the ſame. 4. Alſo in a Woman with child, both in the firſt and laſt months,

if shee have an accute disease. II. We are to consider *at what time a vein is to be opened.* Touching which observe. 1. That such diseases as are caused by a plethora, in them a veine must presently be opened, at any hour of day or night, before it transfer it self into some noble part and the strength of the body come to languish. 2. In feavers it must be done, in the times of Remission and Intermission. 3. If the greatness of the disease require not hast; the best time is to open a veine in the morning, an houre after the patient has been awake. 4. When we would reiterate blood-letting for evacuations sake, we must do it the same day. III. *How much blood is to be taken*; I. where observe. I. *Blood may be more freely taken away,* 1. When the Forces of the patients Body are lively. 2. From Persons of a rosey-color, of a thick and yellow habit of body, haveing large veines, and being formerly accustomed to blood-letting. 3. In a vehement and great disease, when the forces are vigorous, we may let blood til the patient swoun, howbeit we are not ordinarily to stay so long; but when the color of the patient changes, and his pulse growes weaker, and when the blood runs with a lesser streame than before, (unless fat or some other gross matter hinder it) then we must cause it to be stopped. II. *It is more sparingly to be diminished,* 1. In an impure plethora. 2. In a melancholick plethora; because, it is not so hot as to require cooling. 3. In a flegmatick plethora, because the humor being exceeding cold, is made more crude by blood-letting. 4. In children and old people, specially in the Summer. 5. When the forces are discomfited, and the disease is urgent: for then it must be taken away by peecemeal at sundry times.

II. *Frictions, Sweats* and *Baths,* do lessen the quantity of humors: because they raise that which dissipates and dissolves the substance of our body.

III. *Tasting* does the same, because nothing is restored in the Room of what is dissipated, through restraint of food. Because it equally evacuates the whol body, it ought to be used in an universal cacochymia. Because it operates too slowly, it is unuseful for a sudden evacuation. Also old persons can better beare it then children. Cholerick and leane persons cannot endure it long.

IV. External *Hemeroboides* or a portion of the hemorrhoidal veines, are used to diminish plenitude, and for the diseases of the kidnyes, womb, back and hip. They must be opened by frictions, Leeches, Fig-leaves, rough cloaths, juyce of Onions, Centaury &c. The internal are opened by clysters and sharp suppositories, to cure hypochondriacal distempers, of the Liver, spleen and Mesentery.

V. The *Courses* are to be moved, then when naturally they use to flow.

IV. Cupping-glasses, are applied when blood is not very plentiful in the Body. Their greatest use is in Revulsion. They are conveniently fastened to the Armes of women with child. If their use respect the whol body, they must be applied to the inferior parts; if they respect any part they must be applied to the same part.

VII. *Scarification,* if it supply the place of blood-letting, it is practised cheifly upon the thighes, yet sometimes upon the Arms and Back. and so it revells from the Head. If it be used upon its own account, it is to avoid a malignant and sharp matter: which is practised in the Gangren and in Callosities, or Calous disorders.

VIII. *Leeches,* if they are applied to evacuate the whol body, they must be applied to the great and prominent veins which are in the Armes and thighs. In women with child they are applied only to the Arms.

Article, 1. *Of the Removal of Causes which offend in the Quality.*

Point, 1. *Of alteration,*

The Removal of the Causes offending in Quality, consists in Alteration, Purgation, Vomiting, Urining, and sweating.

Alteration is the contemperation of Causes offending in quality, by convenient remedies.

And it is so many fold, as there are causes or humors. And therefore.

I. *Choler,* because it offends in Heat and drouth, needs cooling and moistning; and if it be withal thick, it needs incision and attenuation; if thin, incrassation or thickening. See the Medicaments before. Now for their more convenient use, we must observe, 1. That Infusions are best in the water, so that the decoction be made til a third part of the liquor only remaine. 2. If a flux happen to rise we must forbear the use of sharp medicaments, least they bite and vex the Gutts; yet may we use syrup of red Corants, Barberies.

II. *Flegm* because it is cold and moist, requires heating and drying: and if it be withal thick and clammy, it needs cutting and attenuation. The Medicaments we formerly recited

recited. Touching their use observe these rules. 1. Abstaine from such as are very hot at the beginning, least the matter being melted should swel with greater motion, and the thin parts being consumed the thick should remaine behind. And therefore they ought to be put green into decoctions: in their defefect, cold things ought to be mingled with the dry ones. 2. Strong openers ought to be avoided in a woman with child. 3. Because where flegm is troublesome there the stomach languishes, to those that are not accustomed we must give them their drinks actually hot. 4. If you would have the remedies penetrate the most distant parts of the body, and carry their virtues with them; they must be given boiled or beaten, in broath of Guajacum, with a great Quantity of Liquor.

III. *Melancholy*, in which we must abstaine from immoderate use of Vinegar, especially if the matter be more fervent than ordinary. For black humors do ferment and *swel* by the admixture of vinegar. And therfore if we are to use it, we must give Oxymel with a decoction of Citron peels or some such thing.

IV. If *divers Humors are mixed together*, we must cheifly set our selves against those, which are most active, not quite neglecting the rest, whether within or without the body. Which shal be done when the veins are free from obstruction, al the passages of the body open; the humors not far from a temperature, and the noble bowels free from obstruction. In opening syrups Heurnius observes this order 1. First syrup of vinegar is given; then syrup of the two roots without vinegar, then the said syrup with vinegar, after that syrup of the five opening roots, then Syrups of Byzantinus so called without vinegar, and lastly the said syrup with vinegar.

Point, 2. *Of Purgation.*

Purgation, is a convenient drawing out of Humors offending in quality, but yet prepared, out of the Body, by medicaments which purge by way of stoole.

I. Those *Humors* are either smal in quantity, or plentyful, and either they cause a fever; which is vehement or weak, or they cause no fever; or they wander through the whole body with vehemency of sympromes or not.

II. *By Coction* in this subject, we do neither understand that which is called pepsis, and is a changing of the thing to be concocted into the nature of the Concocter: nor is it that coction which is opposed to crudity which is the indigestion of aliment, in the stomach, liver and veins; or humors having passed the mediocrity of Coction, as in yellow and black choler; nor the redundancy of cold humors: but that kind of Coction which is called Pepasmos, and is nothing but the reduction of humors disagreeing in substance and qualities, corrupt and putrid, unto a similitude, and the separation of the corrupted from the uncorrupted; which is performed by the Efficacy of the Natural Heat, separating the profitable from the unprofitable. Yet is it not necessary that al humors be concocted. For there are humors which are not in a capacity of concoction, being severed from the concoction of the blood, as in Catarrhs, the Colick Flegm, Hydropical water, and such as offend by some hidden Quality.

III. *Preparation of Humors* is twofold; 1, To Coction, which is performed by removal of all impediments, by diminishing the Humors, augmenting the natural Heat and repairing the forces of the body. 2, To *evacuation* which is done when the Humors are made fit for expulsion, such as are clammy being cut, and the thick attenuated, the waies being made free and open, with clysters, emollient broaths, and the like.

IV. Touching *Medicaments* these things are to be observed. 1. That they are either moderate, which reach only the inferior parts: or vehement, which penetrate beyond the liver and into the habit of the body: that they are either catholick or universal, by which al humors are purged together; or such as draw some particular humors, and they Choler purges, Flegm purges, Melancholy purges, Water purges. 2. That they ought to be addicted and accommodated to the part to be purged. And truly, Agrick is appropriated to the Head, Cassia to the breast, Aloes to the stomach and Gutts, Rhubarb to the liver, Sena to the spleen, Hermodactyls to the joints. 3. That they ought to be of equal pace in operation, that one do not prevent and out-run another; and that they must be mixed with odoriferous medicaments of thin parts, least they overthrow the stomach, and that wind may be dispelled: yet must not these odoriferous ingredients be in so great quantity, as to move urine. 4. Alwaies to abate somewhat of their strength 5. That they act by help of the expulsive faculty so as to disturbe and jumble the whole mass of Blood, then to sparate the humors, whether any part of their substance be drawn into the veines, or they act only by a vapour sent forth.

V. The *Conveniences of Purgaton*, viz. Whether or no? How much? When? After what manner?

I. As for *whether or no*, observe, I. *That you must not purge*, 1. If there be paucity of Humors, 2. If the Body be sound and of a good temper. 3. If the patients purge only by the smel of the Physick. 4. If the forces of the Body are weake by way of dissolution; and then the Artery pressed with three fingers does not fly up; or one finger being removed, it is not felt by the next; or there are more little than great pulses, more languid than vehement, more slow than swift. 5. If the stomach be weak, in which case a Clyster is convenient. 6. If there be plenty of crude humors; because gripings are raised, and little to speak of evacuated. 7. If there be an Impostume in the Gutts. 8. If the midrif be stretched, raised, burning, inflamed, and the Urine fiery. 9. If the Member from whence you intend to purge, be troubled with some raging pain. 10. If the Belly be bound & no clyster given. II. *You must purge*, 1. If there be gripings without a fever, heavinels of the knees, and paine in the Loins, 2. If the matter, conceived in the member be moveable 3. If the sick be hard to vomit, and moderately fleshy. 4. If nature do not incline to a Crisis. 5. If the foregoing conditions are absent. III. *You must warily purge*, such as are of an healthy and pure body, idle, apt suddenly to faint away, such as are frampold and hard to please, Children, old Men, women, such as easily vomit, such as are leane and of a thin body, and those that are of a cold and moist constitution.

II. As for *how much*, observe. 1. That you must alwaies purge rather with a little than a great dose. 2. That the parts in the Region of the Belly, require lenitives, in the venous or veine-region, moderate purgatives, those in the habit of the body, vehement ones. 3. Strong forces of the Body, with great abundance of Humors, does prohibit a medicine, which purges plentifully and tumultuously, least the spirits be dissipated; but when the humors are not so plentiful a strong medicament may be given. 4. That the Bodies forces being weak by repletion, do require smaller purgations, the remaining Humor being drained out by gentel repeated Lenitives. 5. That the forces languishing through resolution of the Body, do only require gentle and partial or repeated purgations. 6. Women with child in the seventh month must be gently purged, least the child being heavy come by strong agitation of the medicament, to be cast downward. 7. Old persons, because with tract of yeares their benigne juyces are exhausted, cannot bear strong purgers. 8. Nor yet children: because they grow and their humidities do easily evaporate. 9. Men of rare or thin texture of Body, if they be strongly purged, they suffer detriment thereby. 10. *Leane* persons, because they have large veines are easily purged. 11. Long-legged persons, are easily purged. 12. Such as live hardly, as labouring Country-people, are not moved with a gentle purge. 13. Melancholick persons, whether they be so by nature, diet, or sickness, because they are for the most part of good strength without danger of weakness, and have their bodies solid and ful of juice, must be strongly purged. 14. But stammerers must be gently purged, because they are liable to a loosness. 15. When only the stomach is out of frame, gentler purgations must be used, least more il humors be drawen to the stomach. 16. Great plenty of Humors, profoundly situate in the body, do need more plentiful purgations either jointly or severally. 17. Where we need more evacuations, we must begin with the most gentle, 18. We must then use strong purgations, when gentle wil not do the deed.

III. Touching the *quando, or when you must purge*, take these Rules. 1. That women with child ought not sooner to be purged then when the child begins to stir, & that when the Humors work. Women in childbed, must not be purged til their month be over. 2. In Peracute diseases, If the matter be unruly and in motion, you may purge the very same day, by reason of the tenuity and fluxibility of the matter. 3. In the firs of intermitting diseases you must abstaine from purging, in the time of Remission and Intermission, you must purge, 4. In long-lasting diseases, we must not purge before the matter be attenuated and made fluent, and the passages opened. 5. In the Summer time, before day; in the winter give your purges in the day. 6. The juyces which are in motion, or wil shortly be in motion, must be purged, to prevent the Encrease of the disease, and that the part may not be marred by over abundance of the juyces. 7. In the Dog-days and immediatly before you must not purge; For the bowels Heated by the violence of the Season, do easily entertaine a fever.

IV. As for the question, *after what manner*, take these following rules. 1. To every Humor you must apply its proper purgative. 2. To near parts, and in Melancholy cases, liquid Medicines are good: in remote parts, you must use solid ones, which stick long in a place, and spread their virtue more effectually

effectually. 3. Vomiting, which is wont ſometimes to ariſe, after the taking of a purge, is ſtaied by ſtomach-ſtrengtheners, or cupping glaſſes applied to the navel, or with juice of pomegranates, in ſuch as are of a weak ſtomach and hot liver, it is prevented by holding an Eg to the throat, or putting toaſted bread to the noſtrils. 4. Loathing of the ſtomach is taken away by a linnen cloath wet in Vinegar put upon the Cup, or by waſhing the mouth with juyce of pomgranates, before the potion is taken, 5. A purge which cauſes griping, is mitigated, by a clyſter lenitive, or a potion of the decoction of Maſtich, or with lukewarm water. 6. In perſons abounding with melancholy, Catharticks ought to be mingled with lenitives and moiſtners. 7. Purgers, if they be given with barly water, do work little or nothing by reaſon of the abſterſive faculty therof. 8. Super purgation is ſtopped with new or old treacle, & a grain or two of opium, mingled with three ounces of wine. Alſo with a cruſt of bread ſteeped in vinegar, and laid upon the ſtomach. 9. In the ſummer, purges are to be given with coole things. For the ſummer Heat calls the juices abroad, which the Medicine preſently draws away. 10. Winters cold, becauſe it wil hardly let the humors go, the habit of the body being compacted; declares that preparatives are to be premiſed, and cutters mingled therewith. 11. The Aire of the patients chamber, if it be too hot, it ſtops the operation of purging phyſick, by drawing the Humors into the circumference of the Body. 12. A Lenitive or gentle medicine muſt be taken a little before or after meat, leaſt nature abuſe the ſame by turning it into Nutriment. 12. After a purge is taken, the Patient muſt reſt, that nature may embrace the medicament: and then a little motion wil do wel, to melt the humors, and that the expulſive faculty may be provoked. Some Phyſitians bid their patients ſleep a little after a ſtrong medicament, but not ſo after a weak one. 13. When you give a ſtrong medicament, let the patient eat, three houres after the Phyſick begin to work: when you give the ſtrongeſt purges of al, let the patient paſs over the time of its operation without dinenig, for ſuch medicaments need no ſpur. 14. If the patient cannot hold out, but dureing the purgation, be ſo hungry as to ſeem weakned thereby, let him drink preſently after the taking his medicament a draught of broath, or bread moiſtened in wine. But thirſt declares that the purgation is finiſhed, by reaſon of ſome Conſumption of the roral moiſture, provided it be not provoked with a light Catarrh, or the ſtomach be not naturally inflamed, and there be no ſuſpician of any inflamation from the Medicament. 15. When the evacuation is ended, the Broath of a pullet may be given with ſugar, to waſh the Gutts.

Point, III. *Of provocation of Urine, Vomiting, and Sweating.*

Diureſis, or Urination, is the drawing of Humors out of the Body by diuretick or urine, forceing medicaments duly adminiſtred.

You ſhal duly adminiſter them. 1. If you give them in ſuch diſeaſes, as are evacuated by little and little. 2. If you give diuritick medicines properly ſo called in thick humors, thoſe improperly ſo called in thick and aduſt ones, which by that meanes are made more fluid, taking heed of dry diſeaſes, ſuch as the Conſumption, Madneſs, &c. 3. If you give them not in bodies ful of humors, til the humors have been firſt abated by purgation, leaſt by their thickneſs and plenty, while they ruſh headlong into the narrow paſſages, they come to obſtruct them. 4. If you give not ſweet medicines to women, leaſt they be drawen to the womb. 5. If the paſſages be neither inflamed nor exulcerated.

II. *Vomition is the ejection of Humors upwards by vomitory Medicaments, conveniently given and applied.*

Thoſe *Humors* are, all cholerick, flegmatick and melancholick humors, but thoſe eſpecially, which either reſide in the Capacity of the Belly, or are contained in the ſpleen, hollow ſide of the Liver, or the Pancreas [Sweet bread] ſuch as are thin and chollerick and of their own accord tend upwards, which is perceived by bitter belchings, paine, biting, and heavineſs of the Midrif. Alſo ſome vomitings empty the whol body.

Vomitory Medicaments procute vomiting, either becauſe they have an inclination upwards, or becauſe they do as it were float upon the ſtomach and oppreſs the ſame, or becauſe they looſen the upper orifice of the Stomach.

The Conveniency of preparation and application Requires; 1. That they be given to perſons leane by conſtitution and habit, but not by ſickneſs; provided they vomit eaſily, namely that they have a large breaſt, firme Head, and uſe not to ſpit blood, nor are in a Conſumption, nor are ſubject to

ſuffuſions

ſuffuſions in their Eyes, or to frowning or fainting fits. 2. That you be not haſty to give them to old people. 3. That you give them in the Summer, becauſe then the Humors are carried upwards. 4. That the Vomit be ſo much the lighter by how much the Diſeaſe is more vehement; and ſo much the ſtronger by how much the part to be cleanſed is far ſituate in the body. 5. That no oyl be uſed in Feavers, becauſe of the Relaxation of the ſtomach whoſe ſtrength ought to be preſerved in Feavers. 6. That you give them before meat in thin and cholerick perſons; after meat in flegmatick people, becauſe flegm ſticks faſt in the body. Obſerve more particularly concerning Helebore. That the body be free from al feaveriſhneſs, That the Patient be accuſtomed as it were to vomit for three, yea, & for twenty daies before, that he may not vomit to purpoſe, til the morbifick matter be digeſted. That the Hiccupping which is wont to ariſe in the middle of the vomitings with Hellebore, be ſtopped by giving the patient Mul-ſack with Rue boiled in it. That it be given in a convenient Quantity. For a leſſer doſe than is fit, agitates the juyces, and diſturbs nature, to no purpoſe.

III. *Sweating is an Expulſion of Humors by the pores of the Skin al the body over, cauſed by ſudoriſick Medicaments conveniently adminiſtred.*

Touching the *Medicaments* obſerve. That they have a greater tenuity or ſubtilty of parts, than Diureticks have. That they cauſe ſwear, by turning the Humors into vapors, and thruſting them into the outer parts of the Body. That cold ſudoriſicks work by an occult Quality.

Their *convenient exhibition*, is regulated by theſe precepts. 1. That cholerick perſons ſweat not without trouble and inconvenience, becauſe of the overgreat diſſipation of their natural Heat. 2. Humors cannot be conveniently forced out of the Cavities of the ſtomach, Guts, Wombe, and the like, into the habit of the body. 3. The forces of the body being weak, are more impaired by ſweating. 4. In old and cold diſeaſes, as diſtillations, Palſies, Sciatica, Pains of the Joynts, Sudoriſicks are exceeding good. 5. They are to be given after univerſal purging, in the declination of a diſeaſe. 6. They are moſt of uſe in peſtilential Diſeaſes, nor is there then ſo much need to obſerve, either the time of the diſeaſe, or the ſtrength of the Patient. 7. The Humor to be evacuated muſt either be thin of it ſelf, or it muſt be made ſo. 8. Plenty of morbifick matter muſt not be aſſailed by ſweaters, leaſt being carried unto the Skin, it ſhut up the ſmal pores thereof, and either breed or encreaſe putrefaction.

Article, 3. *Of the Removal of Cauſes offending in Motion.*

Point, 1. *Of Revulſion and Repulſion.*

The taking away of cauſes offending in Motion, contains under it *Revulſion*, *Repulſion*, *Derivation* and *Interception*.

I. *Revulſion is the convenient averſion or turning away of matter flowing into ſome part, into a part quite contrary.*

I. This Averſion is cauſed, either by Reaſon of Vacuum, by blood-letting, cupping-glaſſes and Horſe-leaches; or by reaſon of Heat and pain, by dolorifick ligatures, ſtrong frictions of the oppoſite parts, Cliſters, Suppoſitories, hot waſhing, and veſicatories.

When I ſay that *Averſion* ought to be made to the *contrary part*, Obſerve. I. *That it muſt be made to remote parts*, to difference it from derivation, which is to near places. Where note, that thoſe parts beſides contrariety muſt have rectitude of ſcituation, not preciſely mathematical but natural, in reſpect of the fibres and filaments of the Veins: alſo in reſpect of the fibres and veins which are remote from the part affected, and have communion with the part ſending; alſo following the rectitude of the Diameter and ſcituation, in longitude, latitude, and altitude. II. *That the Contrariety aforeſaid is*, either in reſpect to the whol body, as when we revel from the Head to the Thighs or Legs, which is done in univerſal revulſions, from the right ſide to the left, or from the left to the right, which is termed particular revulſion. III. *It ought alſo to be to its own beginning, if the ſame be known.* So in the inflamation of the right Leg, we cut the left. The parts above the * Clavicul[illegible] being affected, if it be already a Diſeaſe, and the matter flow in, the Cephalick Vein muſt be opened; if it be yet to come, the vein betwixt the Thumb and fore finger muſt be opened. The Parts between the Kidneys and Claviculæ being Affected, the Baſilica Vein muſt be opened; if there be danger, its branches betwixt the ring finger and the midle finger. Both parts being affected, both above and below the Claviculæ,

* *See Riolanus Anatomy in English.*

Claviculæ, open the Vena Mediana. For the Kidneys you may take your choice. The Ham-Vein, Ankle-vein and the Vena Saphena, exonerate the parts below the Kidneys.

Revulſion wil be fitting and convenient. 1. It it be performed at the beginnings of fluxions unleſs they be laſting. 2. If by convenient places, leaſt the mater be drawn through ſome noble member. 3. If the pain of the part affected be firſt mitigated, and the violence of the Drawing be leſs.

II. *Revulſion, is a convenient rejection of the Influent humor, by repelling Medicaments.*

The Rejection wil be convenient, if you conſider, *Whether or no, How much, and When.*

Touching *whether or no*, obſerve. That Repulſion is not to be uſed. 1. In the noble parts. 2. When the fluxion is near a principal part, leaſt the matter being repelled, ſhould be carried into the noble parts. 3. In parts which are ſcituate too deep in the Body. 4. When a venemous and malignant matter afflicts the Patient. 5. When the matter is thick and clammy, leaſt it become thicker and unapt to to be reſolved; when it is deeply ſeated, as in the Sciatica, leaſt the blood be forced out of the neighboring and ambient muſcles, deep into the connexity of the parts. 6 In caſe of a wound inflicted by a beaſt. 7. When the body is ful of a redundant humor. 8. The humor being already impacted into the Part 9. When there is a vehement pain. For then aſtringents, eſpecially if ſtrong, do cauſe the pain to encreaſe, by exaſperating the tunicles, and by keeping in biting, ſooty vapors, and ſharp humors. 10. When Nature acts aright, and drives the matter critically into ſome part. 11. When the bowels are affected, as in an impoſtume ariſing in an Emunctory, leaſt a ſymptomatical tranſlation of the matter ſhould happen.

Touching *How much*, know, 1. That the tender parts wil not bear over ſtrong repellers. Therefore in the Eyes we uſe only breſt-milk, and Roſe-water, in which ſometimes poppey ſeeds are boiled, and the pap of Apples, &c. 2. In the Augment, repellers muſt be mixed with diſcuſſers, leſt the humor grow hard, or be augmented, by ſtopping the pores of the Skin. 3. That cold & moiſt medicines are uſed, when the humor is thin & is ſeated in the ſurface of the body: when fluxions happen through the over hotneſs of the parts, and great heat or vehement pain afflicts the Patient. 4. Aſtringents are uſed, when fluxions are by debility of the parts, and there is no vehement pain. The *time* of Repulſion, is the Beginning of a diſeaſe.

Point 2. *Of Derivation and Interception.*

Derivation is the convenient averſion of an humor falling into ſome part, unto the neighboring places.

That humor ſo lies upon ſome part, that it is not yet ſhed forth of the Veins into the ſpaces of the part, but fluctuates up and down in the Veins.

Touching the *Conveniency* hereof, note, 1. We muſt not derive before the plenitude of humors be abated. 2. So much muſt be taken away, as the Patients ſtrength wil bear, and the diſeaſe ſhal require; which may be known by the change of color in the Blood. For ſo long it muſt be taken away, til it flow redder and yellower, til inſtead of red it come lead-colored. For the blood being flegmatick in the whol body, wil be redder than ordinary in the ſide where there is an Inflamation: and that blood which is redder than ordinary in the whol body, wil there through aduſtion be changed into black. 3. It muſt be practiſed, before it be faſtened in the part. 4. It is done by opening a Vein: by Noſe-medicines and ſneezers, if the matter be in the Brain. 5. That the Communion of the Veins with the part affected muſt be obſerved. So in a Phrenzy, the Vein of the Forehead muſt be cut; in a Mania or madneſs without a Fever, the Veins under the Tongue; in pains of the hinder part of the Head, cupping-glaſſes are faſtened to the ſhoulders and ſhoulder-blades. When the Ears are inflamed, and when there are riſings behind the Ears, a vein under the Ear: in hot diſeaſes of the Gums, Jaws, Lips, in the Squinzy, the two Veins under the Tongue. The Armpits and Shoulders being inflamed, the Vein of the Head muſt be opened; the Womb, that of the Ham; the Legs, that of the Feet.

II. *Interception, is a ſhutting up of the paſſage of Humors into any part, by convenient Medicaments.* Thoſe *Medicaments* are Repellers. For Interception differs not from repulſion, ſave only in the place of application. Repellers are applied to the part inflamed: intercepters are applied to the parts and wales, through which the Humor is carried. They are likewiſe called Defenſives. Amongſt which fatty and oily things are ſuſpected. For they

they soften the parts, and if they stick on long, they heat the same. Therefore it is better to mingle intercepting pouders, with Role-water and the white of an Egg.

Interception is then conveniently administred, 1. When the Intercepters are applied to the parts that have least flesh, in which the passages are most large. 2. When we apply such as are strong, where the habit of the Body is hard, the vessels large, and the season hot, which loosens and widens the passages; also where the Humor flows violently into the part. 3. If in contrary Cases, we use the milder sort.

Article, 4. *Of the Removal of Causes offending in place.*

Point, 1. *Of Softening and Discussing.*

The Removal of Causes offending in place, containes *Emollition, Discussion, Suppuration, and Attraction.*

I. *Emollition is the alteration of a thick & hardened Humor by softening Medicaments.*

An Humor is hardned, either by extraordinary or moderate drineß; or by plenitude, or by Congelation,

The *former is altered* by things moderatly hot and moist, least the force of heat should dissipate the Humor; the *latter* by opening the pores with an aiery moisture: the *last* by things hot and moderately dry.

Medicaments exquisitly Emollient, applied to the principal members or parts near them, do bring the life in danger.

II. *Discussion is a convenient dissipation of an humor sticking in some part, and softned, by insensible transpiration, caused by diaphoretick Medicaments.*

'Tis called *Digestion* and *Resolution.* I added, and softned. For humors hardened cannot be discussed, unless they be first softned.

To *convenient Dissipation*, is requisite. 1. That it be undertaken, before the Body be evacuated. 2. That it be not used in such as have hot Veins and Livers. 3. That Dissipaters be used in the State and Declination, and that in the Augment they be mixed with Repellers. 4. That they be not biting, nor vehemently hot, lest the thinner parts evaporating, the thick become dryed and hard as a stone.

Point, 2. *Of Suppuration and Attraction.*

I. *Suppuration is the convenient mutation of an Humor that cannot be discussed, into Quittor, by ripening medicaments.*

The *Conveniency* hereof requires. 1. That it be chiefly practised when Blood offends; for Blood is best changed into Quittor: choler and melancholy hardly, by reason of that degeneration, whereby they raise Cancers and malignant ulcers. 2. That it be not rashly practised upon the internal Parts. 3. That among external parts, it be not practised about the Joynts. 4. That it be not overmuch or overstrong: otherwise it wil dispose the part to a gangrenous Putrefaction.

II. *Attraction or drawing, is the convenient Motion of matter insixed into a part, by drawing medicaments.*

These *Medicaments* are either *more gentle*, which are termed Rubifyrs; or *more strong*, which are Bladder-raisers, Crust-procurers, and Caustick.

The Rules of Conveniency respect *Caustick*, and Vesicatories or *Bladder-raisers.* In *respect of the former.* 1 We must not come to Caustick, before we have tried Rubifiers and Vesicatories; for Caustick take something from Nature. 2. That they be then used when there is danger least the part should perish, and especially when there is fear least abundance of matter should putrefie the Bone. 3. That when there is need of little burning, we are to use an Instrument of Brass; and an Iron one when we are to burn much. 4. That Consideration be had of the Age, Strength of the Patient, and the swellings whereunto they are applied; for many instead of the Kings-Evil swellings, have burnt the jugular Veins. *In respect of Vesicatories* it is requisite, 1. That they be not applied to accute diseases, nor to external Parts exulcerated, nor to the region of the Lungs when they are exulcerated, because by them the ulcers are exasperated, or to gristley parts, and such as are bare of flesh, because by burning they grow black. 2. That after the flesh is swelled, the Cicatrized Part is become black and blew, the Patient is pained, we desist, least the part be stupified. 3. That before they be laid on, the place be rubbed til it look red.

Article, 5. *Of Expulsion of Wind, cal'd Carmination.*

Carmination is a convenient dissipation of the Winds arising in mans body, by carminative or Wind-expelling medicaments.

That this dissipation may be conveniently affected, medicaments discussing winds, ought not to be administred before the matter be diminished; otherwaies more flatulencies wil be raised, by rarefaction of the matter.

THE

THE FIFTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching the Removal of Diſeaſes.

Title, I. *Of the Diſeaſes of Similar parts and their Cure.*

Chap. 1. *Of the Method of knowing and curing diſtempers without matter.*

SO much may ſuffice to have ſpoken of the methodical removal of Cauſes, which ought to be handled a part from the particular conſideration of the cauſes themſelves: the general method for the removal of Cauſes follows, which muſt of neceſſity be jointly handled, with the prime differences of the diſeaſes themſelves; ſeeing it comprehends, not only the diſeaſes but the Cauſes alſo, ſigns and differences of the diſeaſes.

The primary and eſſential differences of diſeaſes, are thoſe whereby they are divided, into *Similar, organical, common.*

Similar diſeaſes, are either of *diſtemper*, or *of hidden Qualities*. A *diſtemper*, is either *without matter* or *with matter*.

A diſtemper without Matter, is a declination of the temperament of a mans body, from its natural conſtitution, induced by certain cauſes proper for ſuch an Effect.

By temperament you muſt not underſtand, that which is called *temperamentum ad pondus*, wherein there is equal proportion of the qualities: but that which is termed temperamentum *ad juſtitiam*, wherein the qualities are not in equal, though in a wel ordered proportion, which is convenient for ſome kind of actions. 2. Underſtand temperament both *ſimple* and *compound*. 3. The temperament of Mans body not only as it is *mixt*: but alſo and principally, as it is *liveing*, whether it be inbred or influent.

The *Signs* are taken from the differences.

The *Cauſes*, are principally external; of which in the ſame place.

The Cure is performed by *Alteration*, if you preciſely conſider the diſtemper it ſelf, but this diſeaſe does not long laſt without matter.

Tis divided into four ſorts.

I. One is *hot*, in which heat abounds. Tis *knowen* from ſuch things as may exhalt and encreaſe ſweat, and from ſuch as are the Effects of Heat ſo encreaſed. It ariſes cheifly from five things, viz. Motion of the Mind and Body, Putrefaction, The nearneſs of ſome hot thing, the mixture of ſomthing that is hot, and ſtoppage of the Body. 'Tis *cured* with *cooling* medicaments, whether *ſimple* or *compound*, *taken in*, or *outwardly applyed*. Where we obſerve. 1. That alterations conſiſting of heat and cold, are moſt eaſily cured. 2. That an hot diſeaſe in a Body which is naturally cold, muſt be vanquiſhed, by remedies that are ſtrong. 3. That cold medicaments have four degreers.

II. Another is *cold*, in which cold exceeds. 'Tis *known* from cauſes which induce cold, and ſymptoms, which follow the ſame. It *ariſes* from ſuch things, as either are of their own nature cooling; or ſuffocate the innate Heat; or overwhelm, or diſſipate the ſame, or withdraw its nutriment. The *Cure* is undertaken, by heating its medicaments, firſt ſuch as are *more gentle*, afterwards the *ſtronger* ſort. See the Medicaments in the Inſtitutions of Phyſick.

III. Another is *moiſt*, when moiſture overcomes. It is *knowen* by the antecedents and conſequents. It *ariſes* from the neighbourhood of moiſt things, and which hinder the tranſpiration of moſt evaporations. 'Tis *cured* by *drying* Medicaments.

IV. Another is *drie*, in which dryneſs prevailes. 'Tis *known*, by former kinds of ſigns. It ſprings from contrary Cauſes, viz. Alteration of dryers, and overmuch reſolution and and paucity of aliment. 'Tis cured by *moiſtners*.

V. Another is *compound*; that is to ſay, Hot and dry, or Hot and moiſt; Cold and dry, or cold and Moiſt. Of which we need not to ſay much. For it may eaſily be gathered what it is, and how to be cured, from the ſimples.

Chap. 2. *Of the diſeaſes of Diſtemper with Matter.*

A Material diſtemper, is the irregularity of the natural temper of Mans Body, by the preſence of ſome morbifick matter.

The *Signs* wil be known from the following differences.

The *Cauſe* is, a preternatural Humor, and that is. 1. Either *collected by little and little*, either through weakneſs of the part, or fault of the Nutriment. 2. Or *affluent*, either by attraction: or by reaſon of tranſmiſſion, either from the whol body, or from ſome certaine parts.

The *Cure* is perfected. 1. *By alteration* with Contraries, if we conſider the diſeaſe, 2. By *evacuation*, if need be, and that by bloodletting, if a Plethory be offenſive: by Purgation if Cacochymia or badneſs of humors offend; by ſweat, if the matter tend to the skin: by vomit, if to the upper parts: by diureticks, if to the Urinary paſſages. III. By oppoſite diet.

'Tis divided into ſo many diſtempers, as the material.

I. One ſort ſprings from *blood*, or a *plethorick* Conſtitution of Body, when ſuch humors as are fit to nouriſh the Body, abound &c. 'Tis knowen by wearineſs &c. It *ariſes* from good Nutriment &c. 'Tis cured, I. By *Bloodletting*, II. By alteration with coolers and moiſtners, eſpecially ſuch as are appropriate to the Liver. 'Tis divided two manner of waies, 1. One ſort is from an *exquiſite plethora*, to which al the precedent notes agree. 2. Another is from a *baſtard plethora*, wherein the cure requires purging likewiſe. 3. Another ſprings from a *plethora ad vaſa*. Another from *a plethora ad vires*, of which we ſpake before.

II. Another kind ſprings from excrementitious choler, which is hot and dry. 'Tis *hardly* cured, if it proceed from the yellow choler. *Never* almoſt, if it proceed from leek colored, eg-yolk-colored, or verdigreiſe-colored choler &c. The Cure is *performed*, 1. *By alteration* with cooling and moiſtning medicaments, and if it be very thin, with thickneſs; if chick, by cutters. Among the former the cheif are, *Stalks of Italian Lettices*, flowers of water lillie, Porſlain, Plantain, Tamarinds, Jujubees, red poppy, among the latter, the cheif are, roots of *Cichory* & *Dandilion*, *Sorrel*, & ſuch things as are made of theſe, *Spirit of vitriol*, *Salt*. 2. *By evacuation*, either by bloodletting, when cholor is mingled with the blood, or by purgation by ſtool, with cholagogues. The cheif *cholagogues* or choler purgers, are *Rhubarb*, which is neither to be given alone, becauſe it is ſubject to fume, nor to ſuch as are troubled with the ſtrangury; *tamarinds*, aloes roſata, which is taken only in pils. *Syrup of*

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the flowers of Acacea, of *Roses solutive*, which must not be given to women with child; *Pils of Ruffi* &c. By a cooling and moistening diet.

III. Another is from preternatural *flegm*, which is cold and moist. 'Tis *cured*, I. By *alteration* with medicaments hot and dry, attenuateing and cutting. Where note, that we must at first abstain from very hot things, lest the matter being dissolved, should swel with greater motion, and that the thinner parts being consumed, the thicker should remain; We must avoid strong openers in a woman with child. The strongest of al are *Lignum guaiacum*, *China root*, *Sassafras*, *Salsaparilla*, *and Oxymel Scylliticum*. Hot stomach medicaments are to be interposed, because the stomach languishes through overmuch heat. II. By *evacuation* with *Phelgm purgers*. The cheif among those indifferently strong, are *Mechoacanna*, of which Lozenges are made; it works most effectually given in pouder; *Carthamus seeds* and *Agarick* trochisked. Among the stronger are *jalap* roote, given with Cream of Tartar, Syrup of Coloquintida, and the Pils of Sagapenum of Horstius. The Golden spirit of *Rulandus*. III. By blood-letting, provided the Heat be not dissipated, being expressed with flegm; and that there be a plethora. IV. By an heating and drying diet, let the Aire be hot and dry, the meats seasoned with spices, let strong wine be used, the body being first purged, Frequent use of Cappars, with wine and raisins.

IV. Another sort comes from preternatural *Melancholly*, whether thick or dilute, or degenerating into black choler. 'Tis *cured*, I *By alteration* with heaters and dryers, provided it be not black choler. The roots of Eryngos, Lycorize, the Herbes of *Ceterach*, *Baume*, *Dodder*; Flowers of *borrage*, *tamarisk*, *Cappars*, *the cordial flowers*. Syrup of sweet smelling Apples &c. Avoid Vinegar; and if it must be used, give oxymel, and a decoction of Citron peels. II. By evacuation with Melanagogues or *melancholly purgers*. The cheif are *Polipody*, *sena*, *Extract of black hellebore*. The diet must be heating & moistning. The Aire must be tempered, with a decoction of Mallows and violets; let the patients meates be boyled rather than roft, Egs, soft-boiled, flesh of henns, calves, partriches; corants, a temperate bath of fresh water, &c.

V. Another Sort comes from *Serum* or the *wheyish humor*, which is a thin and Salt liquor by its aboundance and quality altering the body of man. 'Tis *cured by evacuation* with hydragogues, sudoriticks, Diuretick &c. The cheif *Hydragogues* are among the indifferently strong, the *tops of elder* when they first shoot forth, dried with a gentle heat; an emulsion of the stones of elder-berries, Orice root. Among the strong are, Gambogia, Jalap, Extract of Elatery, conserve of Etula, pils of Sagapenum &c. The *cheif sudorificks* are, Spirit of dwarfe elder and of zeller; *Salt* of Centory, of wormwood, of Ash, of Scabious, *Harts horn* prepared, *Antimony diaphoretick*, *bezoardicum jovial*. Among diuriticks are the *diuretical* liquor and syrup of *Rivius* in Rhenodeus his dispensatory, Salt of *Urine*, *Amber*, *beanes*, Spirit *of Salt*, *liquor* of tartar Vitriolated, half a scruple, compounded with half an ounce of Cinnamon water, and two ounces of julep of roses.

VI. Another is *compound*, springing from some of these humors, mingled together. In the *Cure* we must so work, that we resist cheifly those humors which most of al exercise their efficacy upon the body, not neglecting the rest either within or without. This will be done, when the veins are free from the obstruction, al the passages of the body open, the humors not being much distempered, and the noble bowels of the Body not diseased. Here *panchymagoga* or *al-humor-purgers* are to be used, and the Imperial pils of Fernelius; which may be seen in the London Dispensatory.

Chap. 2. *Of Diseases springing from Hidden qualities.*

Diseases, from hidden Qualities, are diseases springing from Causes which work by a malignant and venemous force, which cannot be judged to spring from the manifest qualities of natural bodies.

The *Signs* are, when a disease has rare symptoms, great ones, and such as are not to be seen in other sicknesses, no not of the same kind. When there has preceeded some suspition, either of some great degree of putrifaction arisen in the body, or of infected aire, or of contagion: or of poison, either taken in, or communicated from without.

The *Cause* is various, as shal be explained in the differences.

The *Event* of the cure is judged of, from the greatnes of the cause, nobility of the part affected, vehemency of symptomes, and the Deaths of many persons. *It is undertaken*, I. By *ridding away the poison*, which is done

divers waies according to the differences of poisons. *II* By administration of *Antidotes*, both common and appropriate to every part of the Body; where nevertheless, we must not forget the manifest qualities. This is an approved antidote viz. *An Electuary of Masterwort Roots*, of *sweet Angelica*, of *Gentian*, of *white thistle*, of each *two handfulls*, *terra sigillata* six ounces, *Myrrh* an ounce, *Venice Treacle* four ounces; *Rosemary*, *Rue*, of each one handful; Birthwort three pound, *Bayberries* one handful; *virgin hony clarified* a triple quantity to al the rest. Make al into an Electuary according to Art.

The *differences* are taken from the Causes.

I. Some spring from *internal Humors*.

II. Others *from infected Aire*. The Cure consists in *prevention* of *such aire* and *avoiding* the same. In *purification* of the infected aire, respect being had to the Cause of the Infection. By giveing of Alexipharmaca or Antidotes, by which the Heart may be defended, and the malignity driven away by sweat.

III. Some proceed from *water*. For there are certaine metalline fountaines, envenomed, either naturally or by some occasion, yea and drinking of water, has brought many into the dropsie, and the scurvy is caused by corrupt waters. Such fountains are to be avoided: and faulty waters must be corrected, by boiling, straining, putting in barley flower or Garlick, &c.

IV. Others come from *Contagion*.

V. Others from *Poisons*, whose *Cure is doubtful*, if present poison be taken in, and that in great quantity. *Impossible* if the poison cannot be expelled, neither by vomit, stool, nor sweat. *Respects*, 1. *Expulsion* by Alexipharmaca or Antidotes, which differ according to the varieties of poisons. 2. *Evacuation*, especially by vomit, that those medicaments may better penetrate unto the Heart. 3. *Prohibition of Sleep*, least the poison should thereby peirce the sooner into the Heart and inner parts. The *Differences* are many. I. *Some* are *poisons taken into the body*, which are cured by a *gentle vomit* made of fat things. By *purgation*, if it stick in the upper Gutts. By *Urine*, if it tend to the urinary passages: and in all medicaments be sure to mingle Antidotes. *By Diet*, in which case, *Milke* is exceedingly commended. *II. Others are externally applied* to the body, whose *Cure* consists in *extraction* or pulling out the said poison, both by drawing medicaments and by such things as do it by a certain likeness, which must be continued, til the evil color pain and symptoms shal cease. *Interception*, which is excellently performed, by binding somwhat very hard upon some part above the place affected. *Use of Alexipharmaca*, if the Poison have peirced into the Body; as, was said before.

Title, II. *Of organical Diseases.*

Chap. 1. *Of Diseases of Conformation.*

AN organical Disease is the deviation or swerveing of the parts of Mans Body from their natural structure.

Now because to the said Natural structure *Conformation*, *Number*, *Situation*, and *Connexion* are requisite, therefore there wil be so many differences, and to this title four heads are subjoined; and also because in *Conformation* or *Shaping*, three things are required, viz. *Figure*, *Cavity*, and *Surface*, there wil be consequently so many diseases.

Article, 1. *Of diseases of Figure.*

A disease in Figure, is the swerving of the parts of Mans Body from their natural figure, depending upon certain peculiar causes.

The *Signs* are evident, so that it is needless to speak of them.

The *Causes*, are whatsoever may violate the figure of our bodies either by compounding, or loosening, distorting, or exhausting.

The *Cure* is not difficult in such as by reason of the Humidity of their bones are yet in a growing condition. *It is hardly to be attempted* in persons growen up, in whom the bones, whose figure the external parts do represent, have attained greater hardness and dryness. *It is performed*, 1. By *handling* and working the part the contrary way, 2 By *binding* with swathes and splints. *It may be repeated*, if the former succeeded not, if the hurt be very great and the sick man lusty: and that by breaking of the Callus emollients being premised. *It ought not to be repeated*, if the patient be old, the hurt less, and the Callus hard.

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The *differences* are from the times of *swerving* of the parts.

I. Either it happens *before the Nativity* in the womb, and then the fault is in the shaping faculty, and it is hardly cured.

II. Or *in the birth*: and then, either the Infant was too great, or the Orifice of the Womb too strait.

III. Or *after the Birth*: where the chief fault is *overmuch repletion*, which must be cured with Evacuation; *Defect of Nutriment*, which requires meats easie of digestion, of good juyce, and of little Excrement. See the chapter of Atrophia, *Violent motion*, either caused by the patient himself, or by the Artist, in which case, fractures of Bones do chiefly happen. *The setling of one part upon another, either by reason of the Resolution or Convulsion of the Nerves*; in which case we must have respect to the disease it self of the Nerves.

Article, 2. *Of Diseases of the Cavities.*

Point, 1. *Of Diseases of the Cavities consisting in Exceß.*

Diseases of the Cavities are those, wherein the natural passages of the parts are hurt. By Cavities or hollow receptacls, we understand both those large Capacities of the Stomach, Brain, Heart, and Womb: as also the passages of the Veins, Arteries, Ureters, &c. and the Orifice or Head of the Vessels and al Cavities whatsoever.

And because the Cavities are hurt, either by way of *exceß*, or in *defect*; the diseases of the Cavities are divided into such as consist in *Exceß* and such as consist in *defect*.

Diseases of the Cavities in Exceß are, when they are greater than naturally they ought to be.

The SIGNS shal be set down, when we come to speak particularly of them.

The CAUSE is, what ever is of tendency to open, or distend, or fret, and divide the Cavities.

The CURE is performed by *Stopping*.

They are divided into *Anastomosis*, *Diapedesis*, and *Diairesis*.

I. *Anastomosis* is *when the mouths of the Vessels are too much opened and widened.* It is known by a plentiful shedding forth of such humor or matter, which ought to be contained in the said Cavities. It *arises* from such things either external or internal, which are apt to loosen, or distend. The *Cure* tends to shut up, by *astringent medicaments* (of which in their place) and has an Eye withal to their Causes. The chief astringents are, Leavs of *Shepherds-pouch*, seeds of *Purslane*, flowers of *Balaustians*, *smal Daises*, *bole Armeniack*, juyce of *Slowes*, *new* Treacle, pouder of *Mans Bone*, Crocus *Martis*, &c. As for the *differences*, 1. Either it springs from *an External Cause* as opening medicaments; and then the causes preceding must be removed. Or, 2. from *plenty of Humors*, especially *blood*, burthening the faculty; and then the signs of those Humors are present. We must go to work, with blood-letting and purging. 3. Or *from the Quality of Humors provoking the faculty*; and then their signs are present. Evacuations being premised, we must use astringents.

II. *Diairesis* is, when the Vessels are divided. *'Tis known* by plentiful efflux of matter with pain. It *arises* from causes which corrode, distend, or break. *The Cure* requires conjunction or soldering by astringent Medicaments. The *differences* are taken from the Causes. 1. It is either from *external Causes*, viz. vehement motion, heavy weight, exclamation, leaping, contusion, wounds, sharp & thick medicaments. 2. Or from *sharp biting humors*, and then the signs of a cholerick or salt humor are present. The *Cure* consists in alteraion by cooling medicaments and such as blunt the sharpness of Humors; by evacuation with choler and water-purgers, &c. and by a cooling and mitigating diet. 3. Or *from plenty of Humors*, in which case, the Cure is the same with that in the Anastomosis. 4. Or *from Winds*, and then the signs of wind are present, viz. stretching without weight, wandring pain; the Causes engendring winds were precedent, the disease arose on a sudden, the Urine is ful of bubles, &c. *The Causes* are, plenty of moist diet, weak heat, which cannot digest the matter. The *Cure* requires, that the Cause be evacuated; that winds be expelled by convenient Medicaments. *White* Amber is commended in this Case, *old* Treacle also and Mithridate, Electuary of *Bayberries*, Conserve of *Sage*, Spirit of *Turpentine*, Oyl of *Fenel Seed*, *Anisseed*, Pouder of *Citron Peels*, &c.

III. Diapedesis, when *the Vessels are rarified*: 'tis known, by an over plentiful sweating forth of Humors. It *arises* from rarifying and moistening Causes. The Cure respects the Causes.

Point,

Point, 2. *Of Diseases of the Cavities in Defect.*

Diseases of the Cavities in Defect are, when the Cavities are rendred more straight than is fit.

The SIGNS you shal meet with in the particulars.

The CAUSES of this straitness are *Obstruction, Constipation, Growing together, Compression, Falling-in*, of which in the Differences.

The CURE requires the Removal of this Straitness, which varies according to the variety of Differences.

As for the *differences*, under them five things are contained.

I. *Obstruction*, which is nothing else, but *the shutting up of the passages by Humors or other things. It arises* from Humors and things wholly against nature, &c. 'Tis *cured* by convenient application of deobstructive medicaments. 'Tis *divided* according to the Causes, 1. One sort springs from *multitude of Humors*; and then Diet is the Cause. Evacuation helps this sort, which must be large, if the Humors be many, having respect to the places. From the Chest by Coughing, from the Stomach by vomiting, from the Belly by Stool. 2. Another *from thick and clammy humors*; and then we must use abstertion, cutting and attenuating: sometimes abstertion alone wil suffice, if the Cavity be open. The medicaments ought to be *strong*, when the viscidity of humors is great, and the place remote; *more mild*, when the Case is contrary, and alwaies appropriate unto the parts. 3. Another is from *Stone, Worms, Quittor, Dung*, of which we shal speak in its place: and then we must use al Evacuations, either at once, or at divers times. And respect is to be had to the place in which the humors are lodged. 4. Another sort is from *clotters* of *Blood*, then we must use medicaments which dissolve blood, such as are the Magistery of *Crabs-Eyes*, Pouder of *Rhubarb, Tormentil, Sperma ceti* not rancid, &c. You have cutting and deobstructive Medicaments, above in the third Book. The principal shal be specified, in the Cure of particular obstructions.

II. *Constipation, when the passage is shut up, by flesh or a tumor bred in the cavity.* It *arises* from a Caruncle, Membrane, inflamation, Tunicle, Push; which must be concocted. The *Cure* requires consumption and evacuation of the matter.

III. *Coalescence, is when the wals or sides of the passage grow together, after an ulcer or wound.* It *arises* from flesh growing to the Cavity, from a scar, &c. The *Cure* requires breaking.

IV. Compression, when the passages are stopped by causes incident from without, which force together the sides thereof. It *arises*, either from *external causes* as cold and dryers, where loosening and moistning things are good: or fresh *Tumors* or *Bones*, removed out of their places. The Cure requires their Removal, and has an Eye to the diversity of Causes.

V. Falling in, or falling down, when the passages are straitned by the loosness and falling together of the sides. It *arises* from over great moisture. 'Tis *cured* by dryers.

Article, 3. *Touching Diseases of the Surface.*

Diseases of the Surface are, when the parts decline from their natural Constitution, in the second Qualities.

The chiefest of them are *Roughness* and *Smoothness*.

I. *Roughness, is a want of that Smoothness which ought to be in a part.* It is cauled, either by *addition of a Surface* in the solid parts, as in fractures certain scales are seen; and there is need of fetching somwhat off, by abstersive Medicaments: or by *taking away*, and then sharp things both *external*, as vapors, Winds, Fumes, Meats, venemous Medicaments; and also *internal*, as over dryness of the parts when their moisture is consumed, bitter choler, salt flegm, &c. In the *Cure* we must fil up, that which was hollowed, the acrimony of humors must be be tempered, and the parts not yet affected must be defended. We must goe to work with moist and clammy medicaments.

II. *Smoothness, is a defect of that roughness which ought to be in a part.* 'Tis *cured* with abstersive medicaments, which have withal some astriction, that the tone of the fibres may be repaired; and the spaces in the surface of the part, being dilated by humors, may be again contracted.

Chap. 2. *Of Diseases of Number.*

A *Disease of Number, is when there is a fault in the number of parts.*

'Tis

'Tis divided into a Diſeaſe of number in *defect* and in *exceſs*.

A Diſeaſe of number in defect is, when a part which ought naturally to be preſent is abſent. That part is either *Sanguine* or *Spermatick*, which is not regenerate or repaired in Specie: or *ſimple*, or *compound*; nor muſt it be the particle of a part, but a whol part. The *Cauſe* is, whatſoever either by way of efficiency or privation of matter, may cauſe the want of any part. The *Cure* points us to Reſtitution, which is made only by nature; the Phyſitian mean while, preſerving the ſtrength of Nature, by defending the natural Heat; by ſupplying fit matter thereto, viz. blood; and by removing impediments, that is to ſay, Fleſh and ſuch like things. As for what concerns the *Differences*. Either the fault is *original*, or through defect of matter neceſſary to generation; or through the weakneſs of the natural faculty, which ought to attract, retain, and elaborate the matter; and ſo it cannot be reſtored. Or after birth: by cutting, gnawing, putrefaction, refrigeration; and the *Cure* is to be directed to its cauſes.

II. *A Diſeaſe of Number in Exceſs, is when there is a thing which naturally ought not to be preſent.* The *Cure* requires the removal of the ſaid thing, which according to the variety of the things to be removed, muſt be various leſt other parts be hurt, or that they may be hurt as little as may be; it is not to be applied to ſuch things as do not trouble a man. If you conſider the *differences*, The thing ſuperfluous is either wholly againſt nature, as Stones, Wormes, &c. and then the Cure is to be applied to them: or ſome *entire ſubſtance*, which ariſes either through over great plenty of matter, and the weakneſs of the formative faculty in the firſt ſhaping of the Child, or by reaſon of of ſome vitious quality afterwards. In theſe Caſes, the *removal* is procured *by Fire*, and hereunto belong actual Cauteries. *Iron*, whereunto belong al kind of ſharp inſtruments. *Medicaments*, Cauſticks, Veſicatories, &c. of which we ſhal ſpeak in their own place, when we handle particular Diſeaſes. A Veſicatory Plaiſter made up of one ounce of *Cantharides* or *Spaniſh flies*, half an ounce of Terpentine, *Olibanum*, *Myrtle*, *Maſtich*, *Camphire* of each one dram. *Oyl of Roſes*, of *Wax*, of each a ſufficient Quantity, is very much commended.

Chap. 3. *Of Diſeaſes of Magnitude.*

Article, 1. *Of Tumors.*

A Diſeaſe of Magnitude, is the ſwerving of the parts of Mans Body, from their natural magnitude.

It is divided into a Diſeaſe of *Magnitude encreaſed, and of magnitude diminiſhed.*

Magnitude encreaſed *is a* Tumor, *which is a ſwerving of the Parts of Mans Body from their natural* State, *by encreaſe of bulke.*

The SIGNS are needleſs to recount; for if it happen in the external parts, it is perceived by the ſight, if it be within, it either diſcovers it ſelf by ſome external Sign, or by ſome other internal ones, of which when we come to the ſorts. To encreaſe of Bulk there is ſomtimes added *diſtemper*, if the matter exceed in Qualities, and communicate them to the parts. *Solution of Unity*, if the Continuity be looſened by fretting, or ſtretching. *Faults in the ſhaping*, either if the figure be corrupted, the Cavities compreſſed or obſtructed.

The *Cauſes* are Humors, Winds, ſolid Subſtance, of which we ſhal treat in their Differences.

The CURE requires Imminution or leſſening that which is overgrown, which if the parts be not *ſound*, it is perfomed by the ſame medicaments, which are good in Number abounding; if *ſound*, it is performed by leſſening the Patients diet, digeſtion, diſcuſſion, &c.

The *Defferences* are ſundry.

I. One is from the *Humors* which is *known* by the ſigns of the Humors; it *ariſes* from Blood, Choler, Flegm, Melancholick, Serioſities, whether they be in the part by congeſtion or affluxion; and whether they are included in a peculiar membrane or not. 'Tis *Cured*, and that with *Difficultie*, if it be ſuddenly diminiſhed, and be not evacuated by convenient paſſages, if a Fever be raiſed, or the fever that was before augmented. The *Cure* varies according to the variety of the Differences. 'Tis variouſly divided. For, 1. Either it is from *Humors ſtirred up in the part*; partly through fault of the part, inaſmuch as the concoctive or expulſive faculty do not perform their Office; partly of the Aliment, ſeeing it is vitious and ſuch, as it cannot be overcome by the part, and ſuch as affords great ſtore of Excrements.

ments. And *then* the tumor is longer in breeding: does not take up so great room, no cause or sign of any fluxion went before. In the Cure we must have an Eye to *Alteration* and *Evacuation*; and the latter must be *sensible*, if the matter be plentiful, and the part thick; *Insensible*, if the matter be little in quantity, and soft. *Now concerning the Congestion of Humors, observe*, 1. That the matter which is Collected in the common cavities, being so encreased that it can be no longer there retained, is poured back to the Cavities and particular pores of the Place. 2. That not only thick and clammy Humors, but also the ichors or thin Liquors, which separate themselves from the thick humors, are brought unto, and stick in the the part affected, especially when they grow cold, out of their own proper place. 3. Also it may proceed from a spirituous matter, whence it is, that a part being weakned by a blow, does somtimes remain continually puffed up and swollen. 4. Also that putrid humors are collected, and hence it is that there wil be smal risings in ulcers. 2. Or it is from *humors that come into the part from some other place*, either by Attraction caused by Heat or pain; or by Transmission, either from the whol Body or some parts. *Then* the signes are contrary to congestion. There was no pain in the part, if it came by Transmission; there *was*, if it happened by afflux. In the *Cure* we must respect, both the *continuing Affluxe*, and the tumor which is in breeding, where *evacuation* has place, either by blood-letting or purgation. *Revulsion* to the contrary. *Derivation* to the near parts. *Repulsion*, Interception, &c. and also the *Affluxe already performed*, where the same remedies are useful unless the matter be forced and fixed into the part, which must then be softened and ripened. 3. Or from *humors shut up in particular membranes or Bags*, where the humor is turned in a manner into another substance. 4. Or *from malignant humors*, where the signes of Malignity are present.

II. Another proceeds from Winds, which is hereby known, that there is no heavines felt, though there be sometimes paine, and the part is sometimes greater, sometimes lesser. It *arises* from causes ingendering wind, and winds are multiplied and collected either under the skin and about the membranes of the muscles, in the pores themselves of the similary parts or in the membranes of the bowels or in their cavities. It is *cured* and that with difficulty, if it be contained in the Muscles, because the flatulent spirit is disposed in al their parts restrained and shut in by the ambient membranes. It is nevertheless *cured* by *evacuation* of the matter, *discussion* thereof, and *Roboration* of the part.

III. Another proceeds from *solid parts*, whether they be bones fallen from their own into another place; or soft parts removed out of their place; or arteries, or veins: of which we shal treat in their proper places.

IV. There is another which is *taken away by invisible discussion*; and then the matter is neither much nor thick; nor deeply situate, nor shut up under a thick and compacted skin. The Body is not impure. Nature is strong: the member growes lighter: the troublesome pulsation ceases.

V. Another, is term inated by *Suppuration*; and then the matter is more plentiful and thick; lying in a deep place under a thick skin; while quittor is making, a paine and palpitation in the part together with a fever, afflict the patient: when the quittor is prodnced, the heat is diminished, the paine eated, the tumor becomes pointed, and begins to be soft and white; the quittor may be felt under a mans finger flowing this way and that, unless the part be thick, or it lie deep.

Another by *Induration*; and then the matter is clammy and hard, natural heat strong, the tumor it self diminished, and the Hardness is encreased.

Another by *Corruption*; and then the part appeares lead-colored and black, and the heat and paine are diminished.

Point, 1. *Of an Impostbume.*

Two things follow a tumor which proceeds from Humors, viz. an *Impostbume*, which is sometimies attended with a *Cavity*.

An impostbume, is a collection of purulent matter or quittor in the Cavity of of some part proceeding from the Humor which causes the swelling.

The *Subject*, is the parts and their Cavities.

The *Signs*, may be fetcht from the third difference of tumors arising from humors, where the business of suppuration is handled.

The *Cause* is the Humor it self, which natural heat ripens and turns into quittor. Hence it is various according to the variety of the Matter.

The

The *Cure*, has respect to two certain times or seasons.

I. *When quittor is in making*; and then we must act, 1. By *anodines* and paine-asswagers. Oyl of worms is exceedingly commended. 2. By *Ripeners* and that *temperatly hot and clammy*, in hot tumors, and soft and moist bodies; such as *sweet oyl*, *wheat flower*, *milk*, *crummy part of wheaten bread*: with such as are yet *hotter*, in cold tumors, and cold Natures and parts; such as *terpentine*, *fire-rosin*, *larch-rosin*, *pine-rosin*, *figs*, *raisons*, *diachylon simple*. II. *When quittor is made*; where we must go to work with. 1. *Evacuation*, either *Insensible*, which is dangerous not only where there is great quantity of matter, for feare of hardning the same, but in al cases, by reason of accrimony, which may be increased by delay. Or *sensible*; and in this case, the Impostthume must be opened; either by more benigne medicaments, amongst which are Diachylon simple with mustard seed figs, and salt: or by stronger, that is to say, potential and actual Causticks. 2. By *Clensing* with detergents, viz. *Juice of smalladg*, of Centory, round birth-wort, wormwood, Betony, Agrimony &c. 3. By breeding of flesh with Sarcotick medicaments. 4. By *covering all with a scar*, by Epulotict medicaments, among which is *Emplastrum Diapalma*.

In respect of the *Differences* they are manyfold.

I. Either it is from *Blood*, and then it is easily ripened, and being ripened it affords laudible quittor. Or from *other humors*, which arises with difficulty, has somwhat in it like quittor, green and yellow.

II. Or it is *pure and simple quittor*, like either *to pap*, *hony*, *suit*, *oyle lees*, *and wine dregs*, and sometimes mixed with many other things

III. The Impostume is either in *fleshy parts*, and then it is easily changed into quittor; or *near the joints*, in nervous and weak parts, which have little Heat in them; and then it is ripened with difficulty.

IV. Either the quittor flowes up and down in the *Cavity*, and is gathered into the receptacle thereof, or it is shut up into a peculiar membrane and bag.

Point, 2. *Of the Hole in an Impostume.*

The Sinus, or holly hole in an Impostume, is when the quittor diffusing it self in the depth thereof, the neighboring skin does not cleave to the flesh beneath it

The *Sign* is the going before of an impostume, and tents, by which it is best of al searched.

The *Cause*, is the quittor it self, which being kept in far below, does make by its acrimony coney holes as it were, and draws together the excrements of the whol Body.

The *Cure* is *impossible*, if it have collected a Callus and hardness. *Doubtful*, if much and unconcocted matter is voided forth, & pain felt in the Hole. *Hopeful* if little quittor, good and white, come forth, and there be no pain. 'Tis performed, I. By *Evacuation* of the quittor, which is done either by *bare clensing*, if the Hole tend downwards, with barly water, melicratum or mead, and wine sod with hony: or by *Opening*, so that either the whol cavity be cut asunder, if it be smal; or only the lower Orifice if it be great, and the part cannot be cut without danger. II. By *production* of flesh with Sarcotick Medicaments, where note. That an excrement must be removed, as wel if it be thin as thick, least it stick in the Ulcer, Most with the dryer sort, as *Orobus meal*, *Orice root*, *Birthwort*, *Myrrh*, *Iutty*, *pompholyx*, in such as are dry; with the less dry, as *Franckincense*, *Barly meal*, *and Bean meal*, in such as are dry. If the hole be not wide open, liquid medicaments are to be cast in by a syringe, and to be let alone a good while. By want of pain, and voidence of little quittor and wel digested, we may guess of the soddering and growing together again of the skin and flesh, and by contrary signs of the Contrary.

As for what concerns the *defferences*, either they are shallow *and little*; or deep and broad; Either *strait or oblique*. They tend either *upwards* or *downwards*, and that way the worst quittor is evacuated.

Article, 2, *Of diseases consisting in Magnitude, diminished.*

A disease of Magnitude diminished, is the diminuition of the parts of mans body in their natural magnitude.

There needs no *signs*, seeing the disease is self is evident.

The *Causes* are, want of *aliment*, either because it is drawn away, or because the channelar e obstructed. Straitness of the place in which a part ought to be augmented: sect-

ion, putrefaction, refrigeration, ustion: of which in their places.

The *Cure* is undertaken. I. By *repairing* the part with plenty of good nourishment. in which case drinking of wines, meats of thick juice, little exercise, indifferent rubbings, are useful. A Dropax or pitchy medicament, of which see the Pharmacopeia. II. By *regeneration*, if a member be pluckt away, which is the work of nature alone; only let the Physitian remove the impedicaments, &c.

Chap. 6. *Diseases in Situation.*

A Disease of situation or connexion, is the sejunction of such parts of the Body as ought to be conjoined, and a conjunction of such as ought to be separated.

'Tis needless I should speak of *Signs*, because the disease is of it selfe apparent.

The *Causes* consist in those things by means of which the parts are fastened together, and touching luxation, we shal speak in the following Article. Now the connexion of such things as ought to be separate, comes to pass when the intermediate parts are loosned, or the ligaments broken, or wounded. The *Cure* requires the Conjunction of parts disjoined, and separation of parts conjoined.

And because *luxations* are most frequent of al the diseases of situation: I think it meet in this place, to treat of *Luxation* in *Generall*.

Article. 1. *Of Luxation.*

Luxation in General is the slipping of a joint out of its natural seat into another, whereby voluntary motion is hindered.

The *Signs* are, the unlikeness of the Member to it self as it was before, in shape and length; Motion hurt; pain, by reason of Compression of the Nerves, Muscles, and tendons; the swelling of that part, in to which the joint is slipt; the hollowness of that place from whence 'tis fallen.

The CAUSES are, al such things which are apt to stretch or violently to force; especially the laxity or solution of unity of the parts, wherein the joynts are contained, the Contraction of the Ligaments, &c. The *Cure* *more easie*, in children and soft persons. 'T *hard* it there be great pain, inflamation, a wound, or danger of Convulsion. If the Luxation be old and hardned with a callus. If it happen in childhood, and be not cured. If it tend to a Consumption, through cessation of Motion and Compression of the Vessels. If the joynts hurt, serve but few different motions. If they are departed far from their Cavity. If the Brows or edges of the Bones are broken. 'Tis *performed* by Reposition or *Restoring* the joynt to its place, which requires, 1. Sufficient extension, whereby the bone is forced into its place, 2. *Reposition* with ones hand; or by common Instruments; or some devised on purpose. 3. By *application of astringent Medicaments*, that inflamation may be prevented. 4. By *diligent binding*, with swaths and bolsters. 5. By putting it into a *gentle posture*, and so that it may preserve its natural figu

The Differences are sundry. For,

I. One sort springs from *external Causes*, a blow, a fal, violent extention before childbirth, and at the time of the birth: which ought to be prevented. Another from *Internal*, when an humor slipt into the Cavity of the Joynt, drives it from its seat.

II. One is *Perfect*, when the whol Joynt is fallen out of its place, which is termed *Exarthrema*.

Another is *Imperfect*, when the joynt is slipt only to the brim of the Socket, which is termed *Pararthrema*.

III. Another is with *Inflamation and Pain*, in which case, the pain must first be mitigated, the Inflamation asswaged; lest by distention of the Nervs a Convulsion arise; and afterwards it must be replaced.

IV. Another is accompanied with a *Wound* which is the most dangerous, especially if the wound be high the Joynt, and an accute feaver arise. Here, the Joynt, is forthwith to be restored to its place, if possible. If it cannot be restored, we must attend the Cure of the Inflamation to the seventh or ninth day.

V. Another is with a fracture, where the Joynt is first to be restored to its place, and the Fracture is to be cured afterwards: if it cannot be reposed, it is then to be restored, when the Callus is bred.

Title,

Title, 4. *Of Diſeaſes of Unity diſſolved.*

A *diſeaſe of Unity diſſolved, is the loſs of that Continuity and Unity which ought to be in the parts of Mans Body.*

The Cauſes therof are, 1. Such as are *Corroſive*, as al ſharp things, Cauſticks, and Putrifiers. 2. Such things as *divide unity*, either by pricking and ſtabbing, or cutting. 3. Things which *break*, as ſtones, Timber, &c. 4. Things which bray and tear, either by repleniſhing or overſtretching. 5. Such as *burn*, as things heated in the fire, red-hot Irons, &c.

The CURE requires *Unition*. The Phyſitians part is to ſee, that nothing betide the part affected, which may hinder the ſame. That the Lips may be rightly applyed one to another. That the temperament of the part it ſelf may be preſerved, and that the ſymptomes, which may happen, be prevented.

And toraſmuch as among diſeaſes of Unity diſſolved, the chief are *Ulcers*, *Wounds*, *Fractures*; I muſt ſpeak ſomthing of them in general.

Chap. 1. *Of Ulcers.*

AN *Ulcer, is a ſolution of Continuity ariſing in a ſoft part, diminution of Magnitude, cauſed by ſome fretting and eating matter.*

The *Subject* is a ſoft or fleſhy part, comprehending not only the fleſh of the Muſcles, but that alſo of which the Guts, Bladder, &c. do conſiſt.

SIGNS are needleſs in ſuch as are external: the Internal may eaſily be gathered from the particulars. The *Times* of Ulcers, if you conſider them, at *firſt*, a watry Sanies, thin, crude and plentiful, flows forth, the Symptomes, viz. pain, itching, &c. do afflict. At the *Augment* the Symptomes are encreaſed, the Sanies begins to be digeſted, and is leſſened in quantity; al things are greateſt in the *State*; in the declination they are leſs.

The CAUSE is either *external*, viz. Cauſtick medicaments, the Contagion of the Whores-pox, &c. or *internal* or humors, which are either bred in the part affected, or flow thither from elſwhere; which may happen in the ſpring time, or by reaſon of exerciſe, in cacochymical Bodies.

The CURE is *difficult* if it reach to ſome noble parts of exquiſite ſenſe, ful of moiſture naturally. If it follow other diſeaſes, becauſe then nature drives the vitious humors to that part. If the Ulcer be great, becauſe the external air can work ſtrongly upon it: If it be round, becauſe the extremities are more hardly reunited. If it be old; becauſe the bone muſt needs corrupt. If it tend to look green and black, for ſo the Heat of the part affected is extinguiſhed. If it run with much ſanies, thin, pale, lead-color'd, black, and ſtinking. If the ſpleen being in fault, it affect the Thighs, becauſe thick and Melancholy Humors flowing to the Ulcer, hinder its cloſing. 'Tis *performed*, I. By *Evacuation*, if the Body be cacochymical. II. By *Blood-letting*, if it be plethorick. III. By *Suppuration*, when blood ſhed out of the veins, ſticks in the pores of the part; where note, that abſterſives are excellently mingled with ſuppurators, leſt the Ulcer ſhould become too moiſt, and that nature which then ſeperates the Excrements, may be aſſiſted. Among them are *Turpentine*, *Oyl of Maſtick*, &c. IV. By *Abſterſion*, of which I ſpake but now; which is performed by detergent Medicaments. V. By *generation* of fleſh, with Sarcotick Medicaments. And here obſerve, 1. That they ought to be neither ſtrong nor weak: leſt by the former, the ulcer become dry, the fleſh be conſumed, bloody liquors be voided: and by the latter, the fleſh grow flaggy, and too great abundance of ſanies be collected. 2. That *moiſt* medicaments be applied to the ſofter Bodies; yet ſo as that, Plaiſters, Oyntments, Liniments be ſo ſoft that they be not melted with Heat of the part, and breed fleſh too looſe, and unlike that wich is beneath: *Pouders* muſt be put upon hard and dry bodies. VI. *By Introduction of a ſcar*, by epulotick medicaments. Where obſerve. That they ought to have a drying faculty both actually and potentially. They are then to be applyed when the Ulcer is not quite ful of fleſh; leſt if it be put to it, when 'tis ful, ſeeing the fleſh does ſtil grow, the Scar becomes more extuberant.

The *Differences* of Ulcers are ſundry.

I. One is *great*, *little*, *long*, *ſhort*, *ſtreight*, *crooked*. *Equal*, in which the fleſh is equally conſumed in al the particles of the part affected. *Unequal* which is, contrarily diſpoſed. *Superficial*, *Profound*, *External*, *Internal*.

II. Another is with a *Distemper*. 1. Either *hot*, which is known by Redness of the Flesh in the Ulcer it self. 2. By feeling of *Heat*, *Pain*, by reason of the acrimony and biting nature of the excrements. It *arises* from hot Air, too great a Quantity of Swaths and Cloaths, over hot medicaments. 'Tis *cured* by coolers which are withal Pain-asswagers and binders, such as are *Plantane*, *Roses*, *Sanders*, *Sugar of Lead*, *Bole Armeniack*, *Turpentine oft washt in Plantane Water*. II. Or *cold* which is known, by the Whitness, Lead-color'dness, and softness of the Flesh, in the Ulcer it self. It *arises* from cold Air, or such like medicaments. 'Tis *cured* not so difficultly, because the Ulcer and Distemper may be cured at one and the same time by Heaters, such as are *Oyl of St. Johns wort*, *Nard Oyl*, *Orice Oyl*, *Oyl of Rue*, to which may be added, Fomentations made with Wine. III. Or *dry*; which is *known*, by the hardness and dryness of the lips of the Ulcer, and the few excrements proceeding therefrom. It *arises* from like causes. 'Tis cured *with difficulty*, because we are forced to neglect the Ulcer, and sometimes, apply our selves wholly to remedy the distemper. For to moisten withal, *luke-warm Water* is good. IV. Or *moist*, which is *known* by the Excrescence of Flesh, and the softness and flaccidity thereof. By store of Excrements in the Ulcer. It *arises* from like Causes. 'Tis *cured*, by strong sarcoticks, made of *Cyperus Root*, *Smiths dust*, *Hoar-hound*, first washing the same to cleanse away the filth, with a lotion wherein astringents have bin steeped.

III. Another is with *Afflux of humors*, whether they come from the whol or from the part. 'Tis *known* from the swelling, which is seen in the lips and bordering parts; by pain, if nervous parts be affected; by plenty of Excrements, greater than the Magnitude of the Ulcer seems to require. It *arises* from Humors. 'Tis *cured*, 1. By *Revulsion*, among the remedies whereof, the chief place is ascribed to fontanels, if Ulcers are lasting. 2. By *Interception or* defence, to which intent the medicaments must be applied above the exulcerated part, towards the root of the Vessels. 3. By *Repulsion*, whose medicaments thereto subservient, must be laid upon the part affected. 4. By more vehement *Sarcoticks*. 5. By *Epuloticks*.

IV. Another is *Sordid*, which sends forth a thick and snotty Excrement, somtime with putrefaction and grievous smel, which is somtimes followed by a *Sphacelation* or a *Gangrene*. Now it is sordid or filthy, 1. *Either by reason of the Humors*: and then the lively color of the part is vanished. The *Cure is* performed by Diet; by Evacuation. By detersion with very abstersive Medicaments, among which Spirit of Wine, a decoction of Vetches, Oyl of Roses a pound, and Mercury Precipitate one ounce, boiled and mixed with other things, are commended. 2. Or by reason of *Unctious Medicaments*, and such as weakly dry; then the Ulcer appears white, and that whitness goes about the whol Ulcer like a bordering of cloath. It must be cured with gentle abstersives. 3. Or by reason of *strong medicaments*, then the Ulcer becomes hollow, and grows every day more red than other; a smal quantity of thin and hot quittor flows forth. 'Tis cured with cooler and gentler Medicaments, as the Oyntment of Diapompholygos.

V. Another sort is *Lead-colored* which *comes* either from the Air, or by afflux of Humors. 'Tis *cured* by scarification; that the blood may be drawn out by application of dry sponges. By drying with strong Medicaments, viz. the *green water* of *Platerus*, and *Hartman* his water in his Chymiatrical Paradise, in the Chapter *De Ozæna*.

VI. Another is *callous*, which proceeds from the use of over drying Medicaments. The Callus is removed by Emollients, or with corrosive Medicaments: but it must be warily removed in nervous parts, or cut off.

VII. Another is *with a Tumor*, which is known by the sight. It arises from Humors flowing in. It is cured after the manner of Tumors.

VIII. Another with *proud Flesh*. It *springs* either from abundance of blood; and then the Flesh is good conditioned. It is taken away, by fasting and application of dryers. 2. Or by reason of the weakness of Flesh-breeding and drying Medicaments. Then the Flesh is loose and spungy. 'Tis *cured* by *Lignum aloes* beaten, and dried on a rafter, with spirit of Wine rectified, twice inflamed, and prepared. *Bartholinus* of Causticks.

IX. Another is *hollow*, when the quittor being overlong detained, eats it self holes and Convey-burroughs as it were. See the Cure in the fifth Book of the Observation of *Valleriola*.

X. Another has *Worms* in it, which bred there. It is *known* either by the Eye if the ulcer be wide; or by a preception of biting pricking pain, and a kind of motion. The *Cure* requires.

requires, 1. Their *drawing-forth*, if they are at hand. 2. Their *being killed*, by medicaments which take away putrifaction and moisture.

XI. Another is with *varices* or black-swelled veins which is knowen by the signs of varices. It cannot be *cured* unless the varices be first cured, and taken away.

XII. Another with *corruption of the Bone* Which is thereby known, in that the flesh above the ulcer is flaggy and soft. The ulcer is frequently renewed, the sanies flowes out in greater plenty than is agreeable to the largness of the ulcer. The Bone is perceived to be uneven, if you put in a Probe. It *arises*, 1, From *external causes*, cold aire, incision, contusion, Sharp medicaments. 2. From *internal causes, viz.* Affluxe of sharp humors to the Bones, pravity of the Sanies, manifest or occult &c. The *Cure is difficult*, especially, if the flesh be lead-colored; if the rottenes be near nervous parts, or in the joints, or about the Heads and tendons of the Muscles, or about the great Vessels. 'Tis *performed*, I. By *laying open the Bone*, either by putting in gentian root, or with a Caustick, or by Incision. II. By *removal of the Bone*, either by exceeding drying medicaments, among which Euphorbium is the best: or by Manual operation, if the Rottenness lie deep, and sudden cure be required: which is performed by shewing or rasping, with a scraping Instrument or an Augur. By burning, after which the inflamation must be pacified and Pain prohibited.

XIII. Another is *with a fistula*, which is nothing but a narrow and long Hole. 'Tis *knowen* by putting in of a probe, and the flesh round about, is white, dry and hard. It *arises* either from plenty of bad humors, or the unskilfulness of the Physitian. The *cure* is *difficult*, if many parts be eaten and fretted, if the Fistulas be deep, winding neare the noble members. If they reach to the heads of the Muscles, the veins, arteries, Nerves, Bones, Joints, Chest, Belly &c. *Not to be taken in hand*, if the Fistulas be far from the noble parts; and if superfluous humors be purged out by them. *Palliative*, whereby, universals being premised, the Fistula is dryed, with the water of Baths, of chalk &c. *True*, which is performed. I. By *premising Universals*, under which Vulnerary potions are comprebended. Mercurial purgations are good in this Case. II. By *removeing the Callus*, I. By *convenient medicaments* putting into the Orifice of the Fistula pencils made of sponge, the pith of Elder, bryony root, gentian &c. when it is widned, things are squirted in with a syrringe, and they are liquid or dry. Such are, *Serpentary root*, *Centory*, *Fig-Ashes*, Unguentum *Apostolorum*, *Agyptiatum*. By *opening the Fistula*, which being done, the Callus must be taken off with a pen-knife, or with a red hot iron, the part being guarded with a defensative. III. By *Consolidation*, the filth being cleansed away, by Centory, pimpinel &c. As for what concerns the differences, 1. Some *have divers holes or Cavities*, and then more quittor flows out, than can be contained in one Cavity. 2. *Others have divers orificies* and then if the liquor squirted in by the syring, flow back through al, and if the humidity be of the same coler, tis but one Fistula. 3. *Another terminates upon flesh*, then that which we touch with the probe is soft, and the quittor that comes forth is white. 4. Another *reaches to the nerve*: then pain is felt when we search it. 5. Another *bottoms at the bone*, and then that which we touch with the probe is hard. 6. Another ends upon a *Vein and Arterie*, and then if they be gnawen asunder, blood breaks forth: if not, a certain matter, like lees or dregs comes out.

Chap. 2. *Of Wounds.*

A *Wound is the solution of Unity in a soft part, made by somewhat sharp and cutting, either by way of a prick or stab, or by way of a slash or gash.*

The *Subject* is a soft part, and that either external or internal, &c.

There need no *Signs*.

The *Cause* is expressed in the definition.

The *Cure* is *none*, if the Heart be wounded, so that the vital spirits be dissipated, if there be a vessel in the Lunges, out of which blood being shed, overwhelms the Heart. If some great internal vessel be so hurt, that it cannot be shut up whereupon, blood being plentifully shed, the sprits are dissipated. *Doubtful*, if the weapon were poisoned, if the wounded person be weak and ful of bad humors; if an inflamation happen, in the inner more nervous parts, and such as have more exquisite sence, which is followed by an afflux, of humors and sometimes by a Gangreen. 'Tis *difficult*, if it be joined with a Cachexy and dropsy, because overmuch moisture, hurts the cure. If it be purged out with difficulty. If it be complicated with other diseases. If it be in a part apt to receive a Conflux of humors. If it have

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in it some extraneous thing, which cannot at first be drawen forth. If on the Critical daies (to which wounds are so far subject, inasmuch as they have in them some matter requiring Concoction) there is no change to the worse. If the wound be oblique or circular. If convulsion happen, or contusion be also present. 'Tis *performed.* I. By exemption of superfluous things. Where note, 1. Clotters of blood must be taken away only at the third binding, because by stopping the Orifice of the veins they hinder a flux of blood. 2. Those broken bones are only to be taken forth, which are perfectly free. 3. The weapon must be pulled forth, if the patient may live, when that is done. 4. That the weapon may be taken out, either by thrusting them along, if the passage be short, and neither bone, nerve nor veine prohibit; or by extraction, and both waies are performed, either with section or without the same; those things which cannot otherwise be removed must be brought out with drawing medicaments, nor must they be by any meanes left to Nature. II. By *conjunction of the Lips of the Wound*, where respect must be had to the manner of binding up, and to which belongs swathing, placing of bolsters, slipping, and the right placing of the part tied up. III. By *Digestion*, that the blood which flows out of the smallest veins, in the part wounded, and sticks in the pores of the part, may as soon as possibly be changed into quittor. Where observe 1. That in moist bodies vulgar moisteners must warily be used, least putrifaction being induced, the wound should turne to a sordid ulcer. 2. In dryer bodies, they are more profitable to correct the dryness. 3. That Digestives must be corrected with sarcoticks, and that we must not trust to one medicament. See the Medicaments which move quittor in the Institutions. This is the best: *Red clear terpentine* and Gum Elemi of each one ounce and an half, Weathers grease two ounces, old Hogs-grease one ounce. Melt al over the fire, and make a Liniment. 4. By *Conglutination* of the *Parts*, which is performed either by a medium of the same kind, in the soft and fleshy parts, in which plenty of blood, by strong heat is more easily changed into flesh; or by a Callus in the bones; or by a scar in the skin. Which is furnished by sarcotick medicaments; of which in another place; also by vulnerary potions, concerning which observe; That they are not to be used at the beginning, nor when external medicaments may serve the turn, and when there is a fever and Inflammation; those things must alwaies be used, which are appropriated to the parts. Hereunto appertain, The *Vulnerary Balsom* of Hartmannus in his chymiatria, the *glutinatory pouder of Crabs*, *Balsam of Eare wax*, and *Rulandus* his balsam of sulphur. 5. By *averting the fluction*, where we are to use, 1. *Bloodletting*, if the body be plethorick. If the blood did not issue out two much before. If the wound be great, and there be no inflammation caused by pain, 2. *Purgation*, if the body be ful of bad humors, if the humors be thin, hot and cholerick; least they make the blood apt to stir. If it be used at the beginning. If there be no fever withal.

The *Differences* of wounds are sundry.

I. One is of the *Vessels*, and that either of a *Veine* and then the blood Issues more violently, and it is thicker, blacker and less hot: or of an *Artery*, and then the blood is yellow, hot and thin; the patients strength is much spent, by reason of loss of spirits; tis hardly cured, by reason of the hardness of the Arteries, their perpetual motion, and the force of the blood in them contained. The *Cure* calls for the stoppage of blood, which is performed 1. By joining together the Lips of the wounded vessel, either with a mans fingers or a swathe, by which means nevertheless, the blood wil hardly be stopped. By *stopping the Orifice* of the Vessel, either by application of ones finger, or by medicaments which stop blood. The *external* medicaments are, *Crepitus Lupi*, a kind of puckfist or toadstool so called, *vitriol* poudered and put in a cloath, the pouder of Agricola consisting of two drams, of *Sugar of Lead*, *White franckincense*, *red myrrh*; *one dram of Saffron and Camphire poudered*, wet with *Frogs-spawn water*, & dried at a gentle fire, put into the wound. *Internal medicaments* see in the Chapter of bleeding at the nose. 3. By *Revulsion* with blood-letting, divers times administred, or by Cupping glasses, if the patient be weak. 4. By *Interception* with intercepting medicaments, which ought to be applied to the vessels, by which the blood flows. 5. By *dissolution* of the *blood* after it is congealed and clottered, see the medicines above.

II. Others are of the *Tendons* which cause pain but not very great. They are less dangerous. They are cured as those of the Nerves, Or the whol tendon is cut asunder in the mids and then the motion is taken away: but if not, the motion is only weakned.

III. Another is of the *Nerves*, which are *known* from the writings of Anatomists, by their

their vehement pain; to which convulsion and inflamation are wont to succeed. They are *cured with difficulty*, by reason of following symptomes, especially, if there be no tumors. If appeareing, they suddenly vanish. If the Nerve have conceived putrifaction, and that be communicated to the near and remote parts. *In the Cure.* 1. *Paine and Inflamation* are to be *removed* by blood-letting and purging. 2. The *wound* must be kept *open* that it may vomit out its Excrements. 3. *Temperate and drying Medicaments* of thin parts, must be applied, mostly hot, respect being had to the Constitution of the body and affluxe of Humors. 4. The *intermediate parts*, must be fomented with oyl of white lillies &c. *If* you consider the differences. I. Some are caused by way of *pricking*, and then the kind of the weapon and the wound agree together. The Symptoms aforesaid follow. The *Cure* is hard because the disease is dangerous. Especially if it betide an impure body, and if the tumor ariseing, do vanish, and raveing follow. It *respects*, 1. The purging of the body from vitious humors. 2. The asswagement of the pain, by anodyne Oyls, or Cataplasmes. 3. The drawing forth of sanies or corrupt moisture either by drawing medicaments, or by section Cross-wise, or by tents, yet so as that they touch not the nerves. 4. Application of thin medicaments, moderately heating, and drying, as balsam of Peru, St. Johns wort oyl, 5. Diet in which cold aire, wind, passions of the Mind and venery, are prohibited. II. Others come by *Cutting*, which happens, I. Either *according to longitude*, and then the paine is not so great, nor is there so great fear of Convulsion, seeing the fibres are not so affected. In the *Cure*, the Lipps of the wound are to be closed together with a swath band. The corrupt liquor must be suffered to have its egress, which is like sometimes to milk, water, whey, whites of Egs. The foresaid Medicaments must be put in. The wound must be covered with a plaister of Diapalma, or some other. 2. Or *athwart* the Member, and then it is either cut quite in sunder: and then motion and sence are abolished without pain: or it is *not cut in sunder*, and then the pain is not so great; there are al the symptoms which may be in a prick. In the Cure stitching must be used, but so as not to hurt the nerve.

IV. Others are of *the Joints*, which happen in the Cubit, knee, and Joints of the fingers. They are, 1. Either *without Luxation*, in which case the *Cure* is *Difficult*, because the Joints easily receive fluxions, and are apt to be pained: especially, if they happen in the inner part, where the vessels are greater. It is *performed*. 1. By drawing the Lips together, so that an issue may be left for the quittor. 2. By preventing the affluxe of humors, by evacuation, Interception, a right situation of the Member. 3. By repulse of cold aire, by Cataplasmes and other things. II. Or with *luxation* or *disjointing*, where there is greater danger because of rearing asunder the nervous parts. Halting followes. In the Cure, the joint must not be restored; for death would then follow. With the wound you must proceed as with other wounds, the binding up, only excepted. The fluxions must be prevented cheifly by purgations and Sudorificks.

V. Others are with *Bruising* when a weapon is blunt, or heavy, or a man is beaten against somewhat. In the *Cure* you must have regard to, I. The *Contusion*, where, 1. Afflux of humors must be prevented by revulsions, defensatives and repellers. 2. The blood which is flowed in, must be changed into quittor, by medicaments not too moist, and Cataplasmes must be applied round about where the part is bruised. II. The *Wound*, which, 1. Must be cured with digestives, of rosin, terpentine, and yolkes of Egs. 2. When quittor is bred, we must use abstersion and consolidation. 3. If it wil not be suppurated, and there is danger of a Gangreen, we must Scarrify &c. The *Differences* are taken from the parts. I. Either it is of the *Nerves* and *Tendons*, where the part must be fomented with discussing Oyls, made hot. If the skin be withal bruised, the paine is first to be asswaged, with the white of an Eg, mingled with Rosewater: then a while after, the part must be fomented with astringent wine luke-warme: finally, Cataplasms must be laid on, of Elme leaves boiled in oyl, or the Ashes of vine sprays with Hens-grease. If hardnes remain, Emollients and Digestives must be applied. II. Or it is of the *Ligaments*, where we must deal with heating and drying medicaments &c.

VI. Others are by *Gun-shot*, which are knowen by the very sight. The *Cure* is *hard*, if the Body be catochymical. If the the bones be withal broken, if they are made with a poisoned bullet. It is *perfected*. 1. By drawing out the bullet, with fit Instruments. 2. By changing into quittor, what is bruised, with *Quercetanes* Ointment, P. 145. The balsam of *Parens* recorded by *Sennertus* lib. 5. Of Wounds made by Gun-shot; so as to prevent

vent a Gangreen. 3. By abstersion with detergents, either stronger if there be much quittor, or milder. See *Quercetanus* Dispensatory p. 146. 4. By breeding of new Flesh, by Medicaments, which may be seen in the forenamed Author, and others. See besides *Ludovicus Botallus*, and others, *Quercetanus* his Treatise of Gunshot-wounds.

VII. Others are *poysoned*, either by an infected venemous arrow or other weapon, or by the biting of some beast: and then, in the wounded place there is greater sense of pain and pricking, and grievous symptomes happen. In the *Cure* we must thus proceed, as, 1. To stop the passage of the poyson to the inner parts of the Body; to draw it out by cupping-glasses or other medicaments; by moderate binding of the part above the wound; by cutting of the Flesh, unless it contain Nervs; by washing the wound, with Wine and Treacle mingled together; with Causticks, &c. By fortifying the Heart with external and internal Antidotes. 2. To cure the wound it self.

Chap. 3. *Of Fractures.*

A Fracture is the division of a Bone, by an external Cause, violently assaulting.

The SIGNS are, want of due motion in the member; bitter pain before the bones are composed; shortness of the member, by reason of the broken bone. The *Causes* are *external*; yet aptness to break, does proceed sometimes from the natural Constitution, sometimes from acquired rottenness, from the french pox, or some other Cause.

The CURE respects, 1. The Inflamation, if there be any, which must be in the first place removed, respect being had to the part, with repellers, lest the Humors should flow in. II. The Fracture it self, where note, 1. It must be *extended*, without any pain, or as little as may be: by one man if the lesser bones, by two if the greater be hurt. 2. They must be *rightly placed* in their proper places, so as the ends may fitly joyn one to another, so that the Eminencies of the Bones may not be forcibly thrust into their Cavities, lest they should be broken. That if they break out of the Skin, they be handled after a peculier manner. 3. We must see whether they be *rightly placed and framed together*, which is known by Cessation of pain, and that there is no cavity: that the broken part feels just as the whol, save that it is thicker possibly, by reason of afflux of humors. 4. They must be *duly bound up*, which is then done, when a medicine made of the white of an Egg beaten with astringent pouders, is first laid on to prevent Inflamation. When the binding, is neither too loose nor too strait. It is then too loose when the Patient finds that he is lightly pressed, and the same night feels himself more strongly bound, and the day after a swelling arises in the extremity of the Member; if it be too strait the contrary signs follow. If it be not loosed before the third day. 5. The *member* must be rightly placed, that is to say, softly, lest it be pained; equally, that it may not be distorted; it must be somwhat raised, left the Humors flow to it. III. The *Body* of the *Patient*, where if need be, blood-letting and purging must be used. IV. The *Callus*, and then meats of good juyce must be given. Medicaments which breed the Callus must be drunk down and applied, especially in grown persons, one dram of Osteocolla, with Comfrey Water. See *Aquapendent* and *Hildanus* in their observations. V. The *Symptomes*. 1. *Inflamation* whereto respect is to be had presently at the Beginning, nor is the part to be bound, or at least not so hard. 2. A *Gangrene*, which see in its proper Chapter. 3. *Itch* and Excoriation, which proceeds from sanies; where the Sanies is to be washed off, and afterwards *unguentum album Camphoratum*, *Rosaceum*, *&c.* must be used. 4. *Pain*, which either springs from the *overstraitness of the Swath-bands*, and then a swelling appears in the extremity of the part, and the sick Patient complains that he is extreamly pressed. The swath-bands are to be loosed, and the binding to be made more easie. Or from a *pricking bone*; and then a pain arises from a light handling of the part. The Bone is either to be restored to its place, or taken out, or cut off. Or from *a Confluence of Humors*, and then 'tis cured like a beginning Inflamation. Or from an *evil scituation of the Member*, and then the Patient easily discovers the same; the scituation of the Member must be changed. 5. The *Gracility or leanness* of the member, and then either an over-thin dier, or long binding of the swathes, is the cause. Nourishment must be drawn to the part.

The *Differences* of Fractures are sundry.

I. One is athwart, so as the Extremities do not at al stick together. 'Tis *known* by this, in that you may feel the ends of the broken bone asunder one from another, and in the place of the Fracture a nonnatural Cavity is observed,

ved, &c. 'Tis *more eaſily healed*, eſpecially if it be ſimple and equal, and the broken bones be not removed out of their places.

II. Another is when a bone is broken into divers parts. This is *hardly* Cured, eſpecially if ſharp eminences or points do prick the parts adjoyning. If they cannot be reduced to their former ſtate, and the member is become ſhorter and unfit for ſervice.

III. Another is *according to the length* of the Bone, which is called a *Clift*. This is known by the preternatural thickneſs of the member. 'Tis *eaſily cured* becauſe there is no need of any laborious replacing of Bones; but it ſuffices that the gaping Chinkt or Rift of the bone be cloſed up.

IV. Another is *Fleſh*, which is eaſily conſolidated.

V. Another is *old*, which is hardly; becauſe Inflamation being added, extenſion is dangerous. The extremity of the Bones grow hard. *Galen* ſaies, if the Cure be protracted beyond the ſeventh day, there is danger that the bone wil be blaſted.

VI. Another is *alone*, of which al that has bin hitherto ſaid, muſt be underſtood.

VII. Another is with *concluſion of the fleſh*, and has a wound joyned therewith. This is dangerous, if the wound be great, and in the greater Muſcles; inflamations eaſily ariſe therupon; the ſplints and other things for the better repoſe thereof, cannot ſo wel be fitted; but an hole muſt be kept open for the Wounds.

VIII. Another, which happens in the *middle of the Bone*, and then the diviſion is lighter.

IX. Another which is *near the Head above* or *beneath*; and then becauſe in the former there are more nerves, in the latter more tendons, greater pain happens.

X. Another is *near the Joynt*; and then by ligaments, nerves, tendons, the part broken cannot be conveniently bound up; in a bloodleſs part the Heat is weak; the motion of the member is hindered, by reaſon of a Callus or hard ſubſtance, which binds up the tendons or muſcles.

XI. Another is, when *Two Bones joyn'd together are broken*, as in the Arm the Radius or Ulna: and then the Cure is hard.

XII. Another when *One*, and then the Muſcles can be leſs contracted, becauſe they are kept ſtretched by the whol Bone.

Title, II. *Touching Symptoms and their Removal.*

A *Symptome is a preternatural Diſorder, in ſuch things as beſide the Conſtitution of the parts are neceſſary to action, following ſome other preternatural thing.*

'Tis many waies *divided*, but *two waies* eſpecially. For,

I. One is of *Action hurt*, whether it be aboliſhed, diminiſhed, depraved, or augmented. It comes to paſs, either through fault of the *Faculty*, when the immediate inſtrument is ill affected; to which the Abſence of the Spirits and Influent Heat is referred: or by reaſon of ſome external *Error*, when thoſe things deceive, with which the actions are performed, or at leaſt, without which they cannot be. Another is of *Things voided*, and *things retained*. Another of Qualities changed, which depend upon the Hurts of Actions; and the Humors depending thereupon.

II. Others are Symptomes of the *natural Faculty*, viz. the Nutritive, Augmentative, Generative, Retentive, Attractive, Concoctive, Expulſive. Others are of the *vital Faculty*; others of the *animal Faculty*, to which belong Symptomes of the external Senſes, of the internal Sences, of the motive Faculty, &c.

The CURE of Symptomes, is their *Mitigation* or aſſwagement, and that muſt be ſudden, when they are urgent, that is to ſay, do threaten ſo great danger, that we cannot ſtay to take away the Diſeaſe, or its Cauſes, upon which they depend; but if we ſhould wait, danger of death, or ſome great Inconvenience would threaten us. Of theſe we ſhal Treat in the particulars.

But becauſe amongſt al Symptomes the moſt frequent is *pain*, we ſhal ſpeak ſomwhat thereof, in general in this place.

A ſingle Chapter. *Of Pain in general.*

P*Ain is a ſad and troubleſome diſpoſition, ariſing from a ſudden and vehement alteration in the ſence of feeling.*

The *Subject*, are the nervous parts, eſpecial-

ly the thicker membranes, which bring vehement pains.

SIGNS, are needless, the sence it self shews it.

The CAUSE, is whatsoever eminently and suddenly alters the part; or dissolves the Continuity thereof.

The CURE, must be hastened, least a fluxion be raised; especially in a vehement one, the Disease also must be set aside, if there be no other Remedy. 'Tis *performed*, 1. By *intigation* with Anodynes, and Narcoticks. Among the former, oyl of *Lillies*, *Earthwormes*, *Chamomel*, a Cataplasme of *bread Crums*, *milk* and Safron boiled together, a pultis of *Marsh-mallow roots* boyled in Milk. *Grulingus* his Unguentum *Jovis*. Among the latter, are the extract of Thorn apple seeds, the *Narcotick* trochisks of *Fernelius*, Quandanum *opiatum*. II. By removal of the Causes both by internal and external remedies.

The *Differences* are taken, either from the Causes or from the parts affected.

I. One kind of pain comes from *an eminent and sudden alteration of quality*, which is taken away, by the remedies of a contrary quality. And it *comes* either from *heat* and *dryness*: then the causes have preceded, the pained part is red, we must go to work with things cold and moist. Or from *cold & dryness*. the suitable Causes have preceded. The skin is white or growes black and blew by binding. 'Tis eased with things hot and moist.

Another springs from *Solution of Continuity*, which is caused either by *many humors*, which stretch; sharp ones which fret; in which cases, bleeding and purgations are useful. Or from *winds*, which teare as it were in sunder; in which case, having premised Carminatives, we must deale with universals. Or from *external Causes*, as beating, cutting burning; where the Cure must be directed to each particular Cause.

II. One sort *is pricking*, in the Membrans which compass the ribs and subcostal Muscles. Another is *beating*, proper to the Arteries, the sign of a great inflamation. Another is a *dul paine and numnedness* which happens in the fleshy membrane, which is spred out beneath the skin which happens from Refrigeration, external Contusion, or compression.

Another is a pain, *as of some heavy thing which burthens*, which is commonly felt in the kidnies, sometimes in the Liver and spleen. Another is a *stretching paine, according to the longitude of the part*, proper to the Nerves, which extends it self into both parts of the Nerves. Another is *stretching according to the latitude*, proper to the membranes which cover the muscles. Another is *wandring*, which arises for the most part from winds in the larger Cavities, of the Belly, womb &c. Another is a boring pain, in the Guts; it arises from cold humors fastned into their Coats. Another is a *leaping* paine, which happens in the coats of the brain, where rising as it were from a root, it suddenly leaps into the Circumjacent parts. Another is *Ulcerative or soreish*, which commonly happens in the skin and parts beneath the same, also in the Gutts, from the Acrimony of Humors and worms, & is common to the dysentery. Another is deep, which happens in the periostium, & presents it self to the senses, as if the bones themselves did ake, or the marrow in the bones. And so much for the first differences of Diseases.

THE

THE SIXTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Treating of External Diseases.

Title 1. *Of the Several sorts of Tumors.*

SO much may suffice to have spoken of Diseases in general and of their cure. Diseases considered in their several sorts, are either *External* or *Internal*. The former are *Tumor* or *Sewllings*, *Diseases of the Skin*, *Diseases of the Hair*, *Ulcers*, *Dislocations* or *Disjointing*, and *Fractures*: and therefore there wil be likwise, just so many Titles in this Book.

Chap. 1. *Of Swellings or Tumors Caused by Blood.*

Article, 1. *Touching over-great Corpulency.*

SOme Tumors spring from *Blood*, others from *Choller*, *Flegm*, *Melancholly*, from *Watry and wheyish Humors*, and some from *a Mixture of these one with another*. Those which spring from Blood are, *Over-great Corpulency*, *Inflamations*, *Bubo's*, *Phygetlon*, *Phyma*, *Furunculus*, *Parotis*, *Paronychia*, *Perniona's*, *Ecchymosis*, *Carbunculus*.

Corpulentia nimia, is an over-great increase of the Bodies Bulk caused by too much plenty of Flesh and Fat.

Signes are needless. The Consequences thereof are an Hindrance of the Motions and Operations of the body, shortness of breath, by reason of the passages being stopt, somtimes suddain Death in such as grow Fat when they are young, Barrenness becanse of the seeds watrishness.

The CAUSE is, the Increase of Flesh and Fat.

The CURE varies according to the variety of the Differences.

The DIFFERENCES are taken from the *Causes*.

I. One sort springs from *Encrease of Flesh*, which is *Caused* through plenty of good

Blood, made by a temperate Liver out of meates of good Juyce, the hot and moist temper of the Musculous parts of the Body, assisting thereunto. It is *Cured*. 1. By *Evacuation* through Blood letting, Cupping, Fasting, Eriction. 2. By *Consuming the Flesh*, with such things as strongly dry, and moderately heat.

II. Another from the encrease of *Fat*, caused by the Oylines and fattynes of the Blood, falling out of the Veins into the Membranous parts, and there congealed by the moderate heat and Efficacy of the said parts. Tis *Cured* 1. By *Evacuation*, but it must be sparing, because such persons are apt to fal into cold Diseases. 2. By *Consumption of the Fat*, effected by things hot, bitter, diuretick; yet so as care be had, that by over much heating, another Disease be not Caused.

Article, II. *Of an Inflamation.*

An Inflamation is a Preternatural swelling of the fleshy parts, springing from blood which besides the intent of Nature flows into the said parts.

The SIGNES are, *Heat*, which is caused partly by reason of the Blood, partly by the stoppage of the pores springing from plenty and thickness of blood, which stoppage wil not suffer the Fuliginous Vapors to exhale; and partly by the bloods putrefaction. *Pain*, both by reason of the distemper, and the solution of continuity, caused by plenty of blood, filling and distending the part. *Redness*, the blood communicating its color to the part affected. *Tension* or *Stretching*, because of the abundance of blood distending the whol substance of the Part. *Renitency* or *Tightness*, from the same Cause. *Pulsation* by reason of the distention of the inflamed parts, caused by the heaving of the Artery, which wants freedom of roome to move it self.

The CAUSE is, the plenty of blood, or its sharpnes by reason of Chollerick Humors; which because they provoke Nature, they are by her thrust out, she using the blood as her Vehicle or Chariot to ride in, which flowes plentifully to the part, by reason of its pain. The *Manner of its Breeding*, is this. An *Hot* Fluxion, causing the blood to fal into the Muscles, first the great Veins, then the lesser, then the least of al are distended. And when the fluxion can be in them no longer contained, it partly sweats through the Coats of the Vessels, which have also their pores; and is partly sent out of the smal Orifices of the Capillary Veins, which open themselves into the substance of the part, and shed into the empty spaces, which are between the first bodies or Particles; whence the parts gather Heat.

The CURE is performed. 1. By *Blood letting*, that more blood may not flow into the part. If we should presently fal to work with repellers, the matter would be carryed to another place. 2. By *Purgation*, because sharp Humors give occasion to the Flux. 3. By *Alteration* that the blood may be cooled and thickned, provided the Veins be not strait, and the Patient not troubled with obstruction of the Bowels. 4. By *Revulsion*, that the Humor may be drawn to a contrary part: which is then best performed by bloodletting, when the matter is much in quantity and violently moved; by other waies and means, when it is little; Yea, and in such a case, it may be done by *Repellers* and *Discussers*. 5. By *Repulsion*, with repelling Medicaments, either watry only, or withal restringent. The *Former* are to be used. in thine Humors, seated in the surface of the Body, not much in quantity, Joyned with Heat; and of that sort are House leek Venus-navil, or Penny-wort, Violets and such like. The *Latter* have place in extremity of pain, where the Vessels are large, and the fluxion is caused through weakness of the parts affected. Chirurgeons frequently use the *Whites of Eggs* beaten together with *Rose-water*. 6. By *Interception* with *Defensative* Medicaments, which are fitly applied to such parts as are not fleshy, and through which the larger Vessels run. Oyl is judged improper to be mingled with these kind of Medicaments. 7. By *Derivation* of that blood, which has flowed into the parts. 8. By *Discussion* with discussive Medicaments; amongst which, the *Gentler* are the Roots of Marsh-Mallows, and of white Lillys, Chamamel flowers &c. The *Stronger*, Orice Roots, Elder flowers, Gum Ammoniack, Bdellium, Bears Grease. The *Strongest of al* are Nitre, Sulphur, Lime &c.

The DIFFERENCES are taken from the subject and Cause.

From the *Subject*. 1. There is one of *the Fleshy parts*, which is finished in the fourteenth day. Another of the *Tendons* and *Ligaments*, which because their substance is more compact and hard, is terminated with greater difficulty: yet it does not exceed the fortieth day.

From the *Cause*. Either it is from *good Blood* and is termed simply a Phlegmon or Inflamation;

flamation; or from *bad Blood*, which has *either* quite changed its nature, and that raiſes no kind of ſwelling; *or* it has other Humors mingled therewith; and *then*, if *Choller* be mingled, it cauſes that Inflamation which is termed Phlegmone Exyſipelatodes; is *flegm*, Phlegmon Oedematodes; if *Melancholy*, Phlegmon Scirrhodes.

Article, III. *Of the Bubo, or Inflamation ſo called.*

The *Bubo, is an Inflamatian of the Kernels which are ſeated in the Arme-pits, or in the Groines.*

The SIGNES are a ſtif ſwelling that yeilds not to the touch, with redneſs, pain, and a ſlight fever.

The CAUSE is Blood ſlipt into the Kernels, together with a vitious Humor provoking Nature to expulſion.

The CURE is *Doubtful*, when they ripen ſlowly, becauſe they may turn to dangerous fiſtulaes. It is according to the *Cure* of Inflamations. *Digeſtion* muſt be procured by ſtronger Medicaments, becauſe the part affected is colder *Suppuration* ought to be haſtened, leaſt new ones ſhould break forth. The *Balſam of Sulfur* and the *Plaiſter of Sulphur* of Rulandus, are commended.

The *Differences* are divers.

I. One is *Symptomatical* to which that which was lately ſaid is appliable. Another is *Critical*, which follows another Diſeaſe, and eaſes the ſick by its breaking forth. It muſt be left to Nature, if the Criſis be perfect: if it be imperfect, the Humor muſt be drawn forth, by Cupping-Glaſſes and drawing Medicaments.

II. One ſort comes in the *Groines*, which is ſooner ripe, becauſe it ſprings from blood, and more Heat flows to thoſe parts. Another is in the *Arme pits*, which for the contrary Cauſe, is long ere it come to Maturity.

III. Some Buboes are *Neither Malignant nor Contagious*; which being in the extream parts of the Body, are ſoon ſuppurated, and not dangerous. Others are *Malignant*, *Peſtilential*, or *Venerious*: of which ſee in their proper places.

Article, IIII. *Of the Phygetlon, Phyma, Furunculus, or Felon Tumor ſo called.*

Phygetlon or Panus, is an hard ſwelling, ſomtimes ariſing after Feavers or pains in the Kernels or Almonds of the Eares. It *Ariſes* either *Externally* from an Ulcer, Pain, Bruiſe: or *Internally* from Chollerick Blood, or a Feaver, and is long in ripening. *Oyl of Guaiacum Wood*, is good in this caſe. *Phyma is a round ſwelling of the Kernels, ſmaller and flatter than the Phygetlon, leſs read and leſs painful, which ſoon comes to its height and turnes to ſuppuration.* It *Ariſes* from Flegmatick Blood, and troubles Children cheifly. It is *Cured* by ripning, through application of toſted Wheat &c.

Furunculus or Dothien, a Felon, *is a little ſwelling ſharp pointed, not exceeding the largneſs of a Pigeons Egg, remarkeable for its redneſs and pain when it tends to Suppuration.*

Its *Signes* are known by the definition. It ſeldom comes ſingle. It *Springs* from thick blood, and is thereby diſtinguiſhed from an *Inflamation*; and the ſaid Blood is not much a duſt, and ſo it is differenced from a *Carbuncle*. The *Cure* is *eaſie*, eſpecially if it riſe high pointed, and is not hard nor forked. It is *performed* by Ripening. It is either *Mild* and *Gentle*, occupying only the Skin; or *Malignant*, rooted in the fleſh. Or it is *Peſtilentical* and *Epidemical*, which being black or green, is joyned with a Malignant Feaver.

Article, V. *Of the Tumer Parotis.*

Parotis is an Inflamation of the Kernels behind the Eares, proceeding from Blood, either pure or mixed with vitious Humors.

The *Signs* are, Swelling, Pain, Redneſs which appears behind the Ears. The *Cauſe* is blood, either alone, or mixed with other vitious Humors, which ſlips into theſe parts, being ſent from the whol body, or from the Brain. In the *Cure*, we muſt not repel, but *Diſcuß* by gentle Medicaments, leaſt ſtronger ſhould exaſperate the Pain; Alſo *Suppuration* may be procured, when Nature tends that way.

The DIFFERENCES *are divers.*

I. One ſort is *Critical*, ariſing with Critical ſigns, which is eaſie to cure; unleſs it hapen in

the end of a Diſeaſe, after other Evacuations, without the Abatement of the Symptomes. If it vaniſh away without Suppuration, it wil come again. It muſt be left to Nature; and being returned, it muſt be judged of, according to the Nature of its return. Another is *Symptomatical*, which if it ſpring from crude and undigeſted matter, it is dangerous, becauſe the place is ſo nigh the brain. In the *Cure*, its antecedent *Cauſe* muſt be deminiſhed: and the *Matter* diſcuſſed, ſoftened, and opened, that the Quittor may do no hurt.

II. Some are *without feavers*: others *with feavers* which are more dangerous.

III. Some are *without Malignity*: others are Peſtilential and Malignant

IIII. In ſome the matter flows from *the whol Body*; in others, from the Brain.

Article, VI. *Of Nail-ſores, Kibes and Chilblaines.*

Paronychia, the Nail-ſore, is a Tumor ariſing upon the fingers ends, beſide the Nails.

The SIGNES are taken from the Situation, and greatneſs of the Pain, becauſe the Nervous parts adjacent are affected and the ſaid pain reaches ſomtimes al the Arme over.

The CAUSE is blood aduſt, ſomtimes Malignant, which Nature thruſts out into thoſe parts.

The CURE is contrived by *Evacuation*, *Mitigation* of *Pain*, and *Suppuration*. *Repellers* muſt not be uſed, leaſt we exaſperate the pain, and fix the Humor. Oyl of *Lead* is commended by *Agricola* Page, 216. And *Eare-Wax* applied with a *peice* of *Ele-Skin*. Page, 246.

Perniones, Kibs and *Chilblains, are ſwellings which ariſe in the winter time, upon the Heels, Toes and Fingers, with other parts of the Hands and Feet.*

The SIGNS are, Refrigeration forgoing, Pains, Itch &c. The CAUSE, the winters cold weakening thoſe parts, and by pain drawing blood unto them. They are ſomtimes long-laſting, and though they go away in Summer, they return again in winter. In the *Cure*. 1. The cold muſt be expelled by plunging the part into cold Water. 2. The Part muſt be fomented with blood warm Milk, wherein Roſe-Mary, Bay berries &c. Have bin boyled; or it muſt be put into hot Water wherein frozen Turneps have been boyled.

Article, VII. *Of an Ecchymoma.*

Ecchymoma, is the effuſion of Blood into the neighbouring ſpaces whereby a Part comes to have a livid, black and blew color.

SIGNS are needleſs, ſeeing the Diſeaſe is apparent to our Eye-ſight.

The CAUSES are various; viz. *Anaſtomoſis, Diapedeſis, Diæreſis, Contuſion*, &c.

The CURE is performed. 1. By *Bloodletting*, if the Diſeaſe be great, leaſt Inflamation be cauſed. 2. By *Repelling* Medicaments which muſt not be moiſt, leaſt blood flow in, and they muſt have diſcuſſors mingled with them. *Honey of Roſes* laid on with blew Paper is good, as is *terra Sigillata* diſſolved with Water of Life. By *Digeſtion*, to which intent the Root of Solomons Seal bruiſed and ſteeped in Wine or other Liquor is good. 4. By application of *Cupping-Glaſſes*, if digeſters help not. 5. By laying on *Ripeners* that are. Of a middle Nature between ſtrong and weak. 6. By *opening the Tumor*, leaſt the Quittar corrupt the neighbouring parts, or make hollow fiſtulaes. 7. If the part encline to a *Gangræn*, we uſe to ſcarrifie the ſame, and to waſh it with hot Vinegar, wherein the Root of Solomons Seal has been boyled. *Inwardly*, ſuch things muſt be given as diſſolve clotted Blood.

Article, VIII. *Of a Carbuncle.*

A Carbuncle is a Tumor ſpringing from Aduſt, thick, and moſt fervent blood degenerating into black Choller, which corrupts the part.

The SIGNS are theſe following. A cruſty Ulcer ariſes, blackiſh or Aſh colored; not long after, a round Bubo, ſharp and burning, which is worſt towards the evening, breakes forth, and the fleſh round about is very hot. There coucurs a Feaver, ſtomach-ſickneſs, vomiting, panting of the Heart, Swownings, Ravings, &c.

The CAUSE is ſuch blood as aforeſaid, which being bread in the Body, and having attained a certain degree of Malignity, is caſt out, and continually generated by a new afflux of Matter.

The CURE in general is in a manner *None*, if having been red, they preſently vaniſh away. *Hard*, of ſuch as are black, and which are

ſeated

seated in the emunctories; and near the noble members of the body. *Easier*, of such as are red, Smal, Single. *The manner of proceeding in the Cure is this.* 1. Let a *Diet* be prescribed cold and moist. 2. *Blood-letting* must be practised at the beginning, to take away fervent blood, provided it be not drawn through some noble Members. 3. The Malignant Humor must be *prepared* and *Mitigated*, to which intent Scabious is most prevalent. 4. We must *Purge warily* because of the acute Feaver. 5. The part must be *Scarrified* where you are to note, that the *Scarrification* is to be iterated, if the blood require the same again. We must not *Draw*, if the Humor flow violently into the part, least the Feaver and pain should be augmented. Nay rather, moderate *Repression* is to be caused, by applying Medicaments to that end three fingers space rouud about the Carbuncle, To which intent the *Pap* of *Appels* is used, boyled with Vinegar of Roses into the form of a Pultis. A *Liniment* of Bole-Armoniack, with a sufficient quantity of Oyl of Roses &c. The *Plaister* of Agricola T. 1. Page, 139. The part being Scarified must be *washed* with Salt Water hot. 6. After it is washed Medicaments must be applied which resist putrefaction, especially made of *Scabious* and *Devils-bit*. 7. If Scarification help not, we must use *Burning*; but so, that we presently anoynt the Crust with Unguentum *Ægyptiacum*, or apply thereto a Cataplasme of *Orobus* meal and Oxymel simple, to remove the same, least if it remain upon the place, it prevent the breathing forth of the Malignant Humor. 8. The crust being removed, the Ulcer must be *cleansed* &c. The Cure thereof, see in Agricola T. 1. Page, 139. If you please.

The *Difference* is two-fold.

I. One sort is *without any Pustle* which discovers it self by those signs, of which mention is made in general, and there is nothing singular in the cure thereof. Another *is with a Pustle*; which *is known*, because an Itching is first felt, and soon after, one smal pustle or more, like the graves of Milet shoot forth, which being broken a crusty Ulcer shews it self: In the *Cure* there is nothing singular observable.

II. Another is *Pestilential*, and then the Constitution of the year is such; the *Symptomes* are stronger. The *Cure* is *most Difficult*, if it break out after a pestilential Feaver, the heart being possessed by Malignant Humors. Tis *easier*, if it break out before, unless violent Symptomes appear soon after. In the *progress* thereof, these things are to be noted. 1. That Blood-letting must be avoided, because it breaks forth, after the Patients strength is dejected. 2. That we are cheifly to make use of *Antidotes* both Internally, and Externally. 3. Al possible diligence must be used, to hinder the putrefaction from spreading. To break it, the *Plaster* of Heurnius in his comment upon the 55. Aphorisme of the fourth Book, is commended. *Oyl* of Antimonial butter, the *Magnetick Plaister* of Hartman, in his Chapter of the Plague. *Agricola* his *Oyl* of Mercury. T. 1. Page, 139. *Elixi* Pestilential of *Crollius*, &c. A *Cataplasme* of radishes beaten with Rose-Vinegar described by *Joel* T. 6.

Another is *not Malignant* and milder, which at first looks red like a Flegmone or Inflamation, and afterward waxes Yellow. For its Cure, see the general Rules.

Chap. 2. *Of Tumors springing from Choller.*

Article, 1. *Of an Erysipelas or Tumor so called.*

And so much may suffice to have spoken, concerning Tumors arising from blood. From *Choller* proceeds *Erysipelas* and *Herpes*.

Erysipelas, or St. Anthonies fire, is a Chollerick Tumor springing from Chollerick blood, flowing together into some part under the Skin, with a spot which is red, broad and dispersed up and down.

The SIGNS are, it seazes the patient with shiverings; after which a Feaver follows. There is a vehement biting and burning, so that smal bladders somtimes arise. The color is red inclining to yellow; not red inclining to brown; which, being pressed with the finger, vanishes and quickly returns. A pain which is neither pulsative nor vehement, and stretches it self out to the neighbouring parts without tension. These signs are not observable in an Inflamation or Phlegmon.

The CAUSE is Chollerick blood, which is bred by an hot Liver, whereby it becomes more thin and movable: or by nature, many times becauſe of a maligne quality, it is driven into the outward parts, or is moved by external Cauſes &c.

The CURE is *hard*, if it follow upon the baring or fracture of bones. It if turne from the external to the internal parts. It is putrifie, or ſuppurate. If it ariſe on the Head or Face, becauſe the Tumor being augmented, it cauſes the ſquinzy. If in the Liver or Womb of Women with Child, becauſe it kils the Infant. It *reſpects*. 1. The driving away of the Diſeaſe, to which end are ſubſervient. 1. *Blood-letting* from the Liver or median Vein, in Plethorick and groſs bodies. 2. *Purgation* by the cooler ſort of choler-purgers. 3. *Provocation of ſweat* by Venice Treacle, in Elder-flower water &c. 4. *Application* of *Topick* or *external* Medicaments, which muſt be liquid and thin, and frequently renewed. The *principal* are, the *Lapis Medicamentoſus Crollij*. *Menſtrual blood* diſſolved in Groundſel-Water and Roſe-vinegar. *Balſom* of Litturige with Camphire, in Frog-ſpawne-Water. *Decoction* of red Myrrh and Olibanum, each one ounce, in Wine and vinegar of each four ounces. A Linnen bay ful of wheat bran, heated. The Liniment of Sebize, at the end of his Book *de Acidis*. 2. *Preſervation* from this Diſeaſe. Where *Blood-letting* is uſeful twice a year. *Purgation* by Choler-purges. *Diet* enclining to cooling and moiſtning, wearing of *ſtockings* wet in Frog-ſpawn-water. The uſe of that *Preſervative* mentioned by *Sinnartus*, in his ſecond Book of Feavers Chap. 16.

It is *divided* two manner of waies.

I. One is *Exquiſite*, to which the general rules aforeſaid agree.

Another is *Baſtard*, and that either *Phlegmonodes*; *Oedematodes* &c. Wherein the Tumor is greater.

II. One is *Simple*, in which the top of the Skin is colored and tainted, and dry ſcales are raiſed like bran. In this caſe, after general remedies, cooling Topicks are to be applied, and the diſcuſſion muſt be left to Nature.

Another is *Ulcerous*, in which after the puſtles are broken, ſaines or Blood-Water and quitter come out. It quickly breaks forth, with an evident Fluxion. It has great moiſt puſtles. Tis quickly come to ſolution and of its own accord: and ſo tis diſtinguiſhed from Herpes. To this al other things correſponding, cooling Topicks or external Medicaments may be applied, til the color of the skin be altered. See the *Cure* in *Rulandus*.

Article, II. *Of Herpes, or the Shingles.*

Herpes, Fermica, *or the Shingles, is a Tumor raiſed by Yellow choler pure and unmixt with other Humors, upon the ſurface of ſome part of the body, and creeping along to the neighbouring parts.*

The SIGNS are, a broad Tumor, ruffing the *Skin*; hardneſs, pain, ſenſe of burning; it makes a Circular kind of progreſs, the middle parts healing, while the extream parts break out a freſh.

The CAUSE is Yellow choler ſincere or unmixt, and thicker than in St. *Anthonies* fire, proceeding from its cauſes

The CURE reſpects. 1. The *whol Body*, which muſt be Evacuated. 2. The *part affected*, which muſt be gently cooled. Digeſtion muſt be uſed and diſcuſſion, by dryers, if heat permit.

Its *divided* into *Simple*, and *Eating*.

I. The *Simple* or *Milet faſhon'd* Herpes, roughs the top of the Skin, and is quartered only under the Epidermis or Skarfe-skin, raiſing thereupon very ſmal pupples, which have very ſmal height from the skin, like the graines of milet. If the puſtles are whole, cold and dry things muſt be uſed: if broke, cleanſers. Water of *quick-Lime* and Sugar of *Lead* are very good. A Decoction of *Arſe-ſmart* and *Resberry leaves* in water and Wine &c.

II. The *Eating* or *devouring* Herpes, the puſtles being broken exulcerates the true Skin, ſpreading it ſelf in depth and breadth; and is long in coming forth by little and by little, it has dry puſtles, laſts long, and comes unattended by a Feaver. Thus it is diſtinguiſhed from an *Ulcerous* St. *Anthonies fire*. Stronger Medicaments muſt be uſed in theſe ſorts of ſhingles.

Chap. 3. *Of Tumors ſpringing from* Flegm.

Article, I. *Of the Tumor cald* Oedema.

OEdema, *(being the only Tumor ariſing from Flegm) is a ſwelling cauſed by Flegmatick*

Flegmatick matter, which Nature expels into the parts of the Body.

The SIGNS are, the ſoftneſs and looſneſs of the Tumor, pain none or very little, whiteiſh color, no heat.

The CAUSE is Flegmatick matter, the colder and moiſter part of the blood; which is ſomtimes expelled by Nature, ſomtimes tends downwards, by its own weight, and ſettles in the extream parts: It cheifly quarters upon the Hands and feet, being Members remote from the Fountain of Heat.

The CURE is performed. 1. By *Diet*, which muſt not occaſion Fleagm and crudities. Fiſh are allowed, that ſwim in ſtony-bottomd Rivers. 2. By *Alteration* and *Digeſtion*, where Oxymel and *Oxyſaccharum* are good. 3 By *Reſolving* with Diſcuſſers, but the part ought firſt to be heated by frictions and fomentations. 4. By *Suppuration*, if by pulſation and pain, we perceive it tending thereto. Whereof ſee *Platerus*.

The *Differences* are ſundry.

I. One ſprings from *Flegm alone*, which is more laſting; and is for the moſt part diſcuſſed by Reſolution, that is to ſay, through the pores of the Skin. Another comes *from it* and other Humors mixt therewith; which ſometimes ſuppurates, eſpecially if it be in an hot part.

II. One ariſes *of it ſelf* which is not dangerous. Another ſort *follows other Diſeaſes*, as the Conſumption, cooling of the Liver &c. Which is dangerous and threatens death. In the *Cure*, regard muſt be had of the Diſeaſes upon which it depends.

Chap. 4. *Of Tumors proceeding from the Melancholick Humor.*

Article, I. *Of the Tumor called* Scirrhus.

THe Tumors which ariſe from the Humor of Melancholick are the *Scirrhus* and *Cancer*.

The Scirrhus is an hard Tumor without pain, ſpringing from a Melancholick Humor, which is thick, clammy and roaping.

The SIGNS are, little or no pain over-great hardneſs, & want of feeling when it is preſſed.

The CAUSE is, an Humor either *Melancholick*, that is to ſay the dreggy part of the Blood, or the natural Malancholick Excrement; or ſomtimes alſo *Flegmatick*, which is either thickned by heat, diſſipating the thinner parts; from thence Inflamations, St. *Anthonies* fire &c. Follow: or it is hardened by an *Immoderate Application* of repellers, aſtringents and ſtrong Diſcuſſives.

The CURE is *None*, if it have no feeling: otherwiſe *ſome cure* may be. Tis *hard* by reaſon of the ſtubbornneſs of the matter. It is *performed*. 1. By *Diet*, which muſt yeild very good nouriſhment. 2. By the frequent *Evacuation* of the prepared Humors. 3. By *Removing the Contment Cauſe*, by Emollients and Diſcuſſers, either mixed together or uſed alone one after another, interchangably. The *milder* ſort in perſons tender and ſoft fleſhed and when the Tumor is new. The *ſtronger* in harder bodies, and where the Scirrhus is old. *Fabricius* Hildanus his *Plaiſter of Hemlock* mentioned in the 25. Obſervation of his 3. Century. A Cataplaſme of *Briony* Roots, *Goats-dung* and *Urin*; are very good. 4. If it come to ſuppuration; by cleanſing away the quittor with the *Plaiſter of Diachylon ſimplex*, omitting heaters and ſection or lancing, leaſt it turn to a Cancer.

It is *divided* into a *true* or *Legitimate*, which is void of ſenſe, and in which hairs grow upon the part, for which there *is no Cure*: and a *baſtard* which is contrarily diſpoſed to the former.

Article, II. *Of a Cancer.*

A Cancer is a round Tumor, blue or blackiſh, having Veins round about it, ful and ſwelling, reſembling the feet of a Crab; and ſpringing from black Choller.

The SUBJECT are parts of the Body as wel external as internal, eſpecially the moiſter and upper parts, as the Dugs of Women.

The SIGNS are drawn from the manner of its Riſe. At firſt, its hardly ſo big as a bean, in the progreſs it exceeds a Wal-Nut and an Eg; it is hard, of a Leaden or livid color, or Elſe blackiſh, with heat, pain and pulſation; the veins round about ſwel with black blood, and reſemble the feet of a Crab.

The CAUSE is aduſt and black Choler hanging in the veins, and by its thickneſs unable to paſs along; which ſprings partly from

Nutriment affording such an Humor, which has not been drawn by the Spleen, partly from an hot burning distemper.

The CURE is *difficult* in al; both becaus it comes from a stubborne and Malignant Cause: and becaus it lurks in the deep veins. It is *not to be undertaken*, if the Cancer be hidden. If it be seated in a Cavity of the body, in the palate, Fundament, or womb. There is *no Cure*, if it be confirmed, and seated in some noble part of the body. It is of *some Hope*, if it be smal, fresh, and stick in the surface of the body. How it is to be performed, see in the differences. As for what concernes the differences.

I. One sort is *Exulcerated*, which is easily *known*, and is caused by a matter sharper than ordinary. It has the appearance of corrupted flesh, with stench, filthy matter coming forth, an horrid aspect, Lips very hard and turned in. There is a slow Feaver conjoyned, Swowning, black or yellow sains or Blood-water, running out of blood &c. Its *Cure* is either *Palliative* by gentle dryers and coolers: or true. 1. By *Incision* to the quick, after which the corrupt blood must be pressed forth, the Ulcer concocted, mundified (see Hartmans ponder, in his Chapter of a Cancer in the brest or Dug) filled with flesh &c. 2. By *burning*, either actual or potential, if the profounder and greater vessels be thereby occupied.

Another sort is *not Ulcerated*, which arises from a milder matter. Is *Cured*, 1. By *Diet* Moystening and cooling. 2. By *Blood-letting*. 3. By repeated *Purgations* of the *Humor*, with extract of *Hellebore*, pills of Lapis *Lazuli*; after it has been prepared with *Fumitory*, *Hops*, Juyce of Fragrant Apples &c. 4. By Application of *External* Medicaments, in which case gentle *Repellers* are useful, as the compound of Frogs-spawn. *Discussers* which have no biting quality, as *Pulvis Benedictus* of Hartman, the Magistery of Crabs-shels &c. See *Agricola* also, T. 1. Page, 145.

II. Another springs from *Suppression of the Courses*: Another of the *Hæmarrhoides*. The Cure must be applied to those Diseases.

Chap. 5. *Of Tumors springing from Wheyish, Salt and Cholerick Humors mingled together.*

Article. I. *Of Scabbyness.*

TUmors springing fom mixt Humors, do arise *either* from salt, Wheyish and Cholerick Humors: or from Flegm, Melancholy and Choler; so that the conjunct cause is no longer an Humor, but some other matter bred of Humors. Hereunto belong *Scabbyness*, the *Grecian Leprosie*, *Phlyctinæ*, *Sudamina*, *Sirones*, *Vari*, *Epinyctides*, *Alphus*, *Leuce*, *Impetigo*, and *Gutta rosacea*.

The Scab, *Is a Tumor arising from corrupted blood, vexing the Patient with distemper and Exulceration of the skin.*

The SIGNS are set down in the definition.

The CAUSE is corrupt blood, mixt with black choler and salt Flegm; which either comes from suitable Diet, especially when the Liver is distempered with Heat; or it is corrupted by contagion: and being brought unto the skin, it sticks therein, and causes Exulceration.

The CURE is accomplished. 1. With *Diet* which requires boyled meates. 2. By *Contemperation* and *Evacuation* of the Humors, and reducing the Liver to its due temper by the Syrup of Coral of *Quercetanus*.

It is *divided* three manner of waies.

I. *One* is Symptomatical, to which what has been said ought to be applied.

Another is Critical, which breaks forth after acute or long Diseases.

II. One sort is *moist*, out of which much sains or blood-water Issues. It is caused by *Salt Flegm*. Tis *Cured* more easily than the dry Scab, and that. 1. By *Evacuation* to which end whey of Goates-Milk, and Fumitory are much commeded. 2. By *provoking Sweat*, either by half an ouuce of *Spirit* of *Dwarf-Elder* and two ounces and an half of Fumitory Water, or by *Spirit* of *Guaiacum*, or *Antimonium Diaphoreticum*, if it be more hard to be removed than ordinary. 3. By *Application* of *External* Medicaments. And here bathes of fresh water, and brimstone

ſtone bathes, are uſeful. Alſo to apply the Yellow middle bark of *Frangula* with Vinegar. And *Sinnertus* his Oyntment Book 5. Page, 1. Chap. 27.

Another *Dry*, in which nothing is voided, or a little quantity of thick matter, and the Ulcers are Lead colored. Tis *Cauſed* by an aduſt Humor. *Cured* with difficulty, after the ſame manner as the former, having reſpect to the Cauſes. Another ſort is termed *Volatica* the *Running Scab*, which infects al the skin, in one night for the moſt part. In this, univerſal Remedies being premiſed, tis good to waſh the Scabs, with the blood that comes from a Woman with the after-birth. See *Agricola* T. Pape, 280.

III. There is another ſort termed *Malum mortuum*, which vexes the Patient with a Leaden and black color, cruſty puſtles, black, Dry, without ſence or pain, cheifly in the Legs. It *Springs* from a Melancholick and Scorbutick Juyce. Tis *Cured* after the ſame manner, having reſpect to the Difference. Another ſort is the *Leproſie* of the Greeks, which differs only gradually from other Leproſies. Tis *Known* hereby, becauſe it Eates deeper into the Skin; and ſcales as it were of Fiſhes fal of, whether the Patient ſcratch or ſcratch not; and the Scabs ſtink filthily. It is *Cauſed* by black-Choler oftimes mingled with Salt Flegm. *Cured*, by the ſame kind of things as the Scab, but ſtronger. The diſtemper of the Liver muſt cheifly be redreſſed. Sweat muſt be procured with a Decoction of *Salſaparilia*, *Guajacum* and *China*.

Article, II. *Of the* Phlyctænæ, Sudamina, Sirones *and* Vari, *Tumor ſo called.*

Phlyctenæ, (or wild fire) *are little bliſters or Bladders raiſed in the skin, by exceeding ſharp Humors.* They are *known* hereby, becauſe they are like ſuch as proceed from ſcalding, and when they are broken, a yellowiſh Humor breaks forth: *Spring*, from a Chllerick wheyiſh Humor, which is thruſt out into the skin either by Nature, or ſome external cauſe. Are *Cured* by a Decoction of Duckweed (univerſal Remedies being premiſed if need require) an Epitheme of *ſtrong Lie* made of Beech Aſhes, mixt up with Lin-ſeed Oyl and walnut Oyl of each a like quantity, and frequently applied. 2. By *Breaking*; a drying Cataplaſme being preſently applied.

II. Sudamina, *are puſhes like milet ſeed, which Ulcerate and ruff the skin.* They are *known* moſt eaſily. They *ariſe* from plenty of ſweat, reſtrained within the skin, eſpecially in an hot and moiſt ſtomach, after an hot Diet. Are *Cured* by waſhing with Oaken-water, to which a grain or two of Camphire may be added,

III. *Sirones* or *Chirones*, are *Puſtles in the Palms of the Hands, or ſoles of the Feet, which have little worms in them.* The worms muſt be Dug forth: then the place muſt be waſhed, with a *Decoction* of *Oake-leaves* with *Alum*; or of Sulphar with Oyl of Tartar.

IIII. Vari, *are little hard Tumors on the skin of the Face, curdled up of an hard thick Juyce.* They are *known* eaſily. They are of the bigneſs of Hemp-ſeeds, and they infeſt young people that are inclined to Venery, and fruitfull; but chaſt withal and continent. They *ariſe* from an alimentary Humor for the moſt part, which inſinuates it ſelf into the pores of the Skin, and ſomtimes has Cholerick blood mingled therewith; and then they ſhed forth an ichor and turn to ulcers. They are *Cured* with *Difficulty*, if there be a deep redneſs in the Face with puſtles. If the ſame be joyned with a bloat Face and Hoarſneſe of the voice. The *Cure* is wrought, by Diſcuſſers and mollients, premiſing ſuch things as purifie the blood. Commendations are given to Oyl of *Vitriol Sulfur*, or *Tartar* ſmeared on in the evening, and waſhed of again in the morning with warm water wherein bean-flower has been ſteeped.

Article, III. *Of the* Epinyctides, Alphus, *and* Leuce.

Epinyctides, *are ſmal Ulcers, which break out, of their own accord eſpecially in the night, in the eminent parts of the Body, reſembling Bladders which being broke in ſunder, blood-wateriſh matter runs forth.* They are *known* by their leadeniſh color or blackiſh, vehement inflamation, pain eneraſing in the night, by reaſon of the motion of black-Melancholy, and the nights cold, ſtopping the pores of the skin. They *ariſe* from a wheyiſh and Melanchollick Humor, like the Cauſe of a Carbuncle in al things ſaye Malignity, and greatneſs of the Tumor. The *Cure* conſiſts in Evacuation and Topicks that bridle and temper the churliſhneſs of the Humor offending.

II. Alphus, *The Morphew, are great Blots or ſpots upon the skin, changing the color thereof, which are ſpread up and down here*

and there, with a certain roughneſs. They *ariſe* from blood badly nouriſhing and they trouble Men more than women or Children. They are either *Black* ſpringing from Melancholy blood through default of the Spleen, which are *Cured* after univerſal Remedies, by *good Diet*, bathings, anointing with Muſtard-ſeed pouder mingled with water: or *White* but not exactly agreeing with the whitneſs of the skin, which ſpring from Flegmatick blood, cheifly through default of the Liver. The skin is by them made white, but not the Hairs, and if it be pricked, blood follows. They are *Cured* more eaſily than the black one. They require not *blood-letting* by reaſon of the coldneſs of the blood.

II. Leuce, *is a continued blot, changing the color and ſubſtance, both of skin and fleſh.* Tis *known*, both from what is ſet down in the Deſcription: and becauſe it makes the hairs fal of, and others grow in their place, like down. The skin is flatter, than in other places. If prickt with a pin, a watry and white liquor comes forth. It *ſprings* from Flegmatick blood, with which the fleſh being nouriſhed, firſt becomes of a middle nature between that of Animals that have blood, and that of bloodleſs Live-wights, and afterward when it cannot change it into the form of red-fleſh, it becomes like the fleſh of Oyſters and Locuſts. The *Cure* is *Deſperate*, if after rubbing it look not red. If prickt, no blood follow: if the blot continualy encreaſe. *Difficult*, if it be ſmal, if rub'd it ſhew ſome redneſs, or be upon the hand or foot. Tis *Performed.* 1. By *Preparation* of *Humors* by heaters and cutters. 2. By *Evacuation* with *Flegmagogues.* 3. By *external Applications*, the parts being firſt rubbed with a Courſe Cloath.

Article, IIII. *Of the* Impetigo *and* Gutta *Roſacea.*

Impetigo *Or Licheu, a Tetter or Kingworm, are hard puſtles upon the* Skin, *which ſpread themſelves into the bordering parts, with dryneſs, roughneſs and great itching.*

Tis *known* by what is in the definition expreſſed. It ariſes from a thin, ſharp, wheyiſh Juyce, mingled with an earthy Humor, which comes from a ſuitable Diet, and ſomtimes in the Spring and ſomtimes in the fal it enclines to the outward parts, and breakes forth. Tis *Cured.* 1. By *good* Diet, which muſt be neither ſalt, nor, biting. 2. By *Alteration* and *Evacuation* of the Humors, if they too much offend. 3. By *Application* of *Topicks. Unguentum Citrinum* with Oyl of Egs, live Brimſtone, Oyl of wax, of Cloves, and Camphire are commended, after a ſomentation of Mallows Mullein and Fumitory. Alſo Oyl of *Tartar per Deliquium* with a like quantity of Oyl of *Wax* mingled. Tis *Divided* into a *Gentle* ſort, which being anointed with faſting Spittle, or with the Roots of the ſharp-pointed Dock, beaten with Vinegar, is ſomtimes cured: and a *Feirce* or *Angry* ſort, in which, beſides the former Medicaments, a water diſtilled out of Oyl of Tartar, with crude Mercury is good, the Mercury being in a quadruple proportion to the Oyl of Tartar. *Joil* his Experiment of the ruſt of Iron, Book. 10. Of his Practice, S. 3.

II. *Gutta Roſacea*, is a *Puſtulous* and ſomtimes *Tuberous* redneſs of the Face, Repreſenting Roſe-colored ſpots. Tis *known* by the ſight. Its *Original* is from thick blood and fervent, bred through default of the Liver originally or by bad Diet, and carryed up into the Face and there ſticking, by reaſon of its thickneſs. Tis *Cured.* 1. By reducing the *heated Liver*, to its right temper, with Syrupe of Cichory, Straw-berryes, and Coral. 2. By *opening* the ſtoppages thereof. 3. By *Topicks* as the menſtrual blood of a Virgin diſſolved in hot water, Oyl of Toades &c. See *Hartman* of *redneſs and Puſtles in the Face.*

Chap. VI. *Of Tumors wherein the Humor is included in a proper Membrane.*

TO ſuch kind of Tumors there are three ſorts referred.

1. Strumæ, *or* Scrofulæ, *which are a* Scirrhous, *Tumors of the* Glandules, contained in a peculiar Membrane. Their *Subject* are the *Glandules* or kernels in the Neck, Dugs, Armpits and groins. They are known by the *ſight* eſpecially among the inhabitants of the Alpes. They *Ariſe* from a Flegmatick, Melancholick, mixt Humor, which proceeds from the crudity of Diet; or from a groſs Juyce nouriſhing thoſe parts, mixed therewith: which is ſhut up in a peculiar Membrane, made by the formative faculty. See the *Cure* in Book 5. in a peculiar Chapter. Tis divided into *ſimple*, of which now, and *Cancerated* which are mixed with a Cancer by reaſon of Black-choler. 2. Into *Free* which are Joyned to no Veſſel; and

and *Intangeld* or *Intaild*, which are Joyned with ſome remarkable Artery, Vein, or Nerve.

II. Ganglion, *Which is a Tumor ſcituate upon a Bone, by reaſon of a Preternatural twiſting or wreathing of a Nerve, which is grown together into one body.* The *Subject* are parts which are covered not with much fleſh, but skin only. *It is known*, both by its ſituation, and that it is void of pain, and of the bigneſs of an Eg, may be ſtretched to the ſides, and being preſſed it makes the body feel the preſſure. It *ariſes* by occaſion of a blow, reaching, or labour, which ſtretches and as it were breakes a Nerve or tendon. Whereupon the excrement of the Nervous part ſweats out. and ſticks about the Fibres and Nervous parts, and by their formative faculty, is changed into this ſubſtance. Tis *Cured*, by Emollients as *Emplaſtrum de Ammoniaca*; and digeſters; and if they ſuffice not with ſuppuraters and by Section; concerning which ſee the Authors.

III. Thoſe kind of Tumors, which ſpring indeed from the ſame cauſe, *viz.* A Flegmatick Humor or Alimentary Juyce; only they are diſtinguiſhed, by the matter contained in the bladder, and from thence take their reſpective Names. For it is named *Meliceris*, if the matter included be like Honey, the Tumor rounder than ordinary, and giving way when it is touched. *Atheroma*, when it is like Water-gruel or Haſty-pudding, and hard to the Touch. *Steatoma*, when it is like to ſuet.

Chap. VII. *Of Tumors ariſing from a ſolid Subſtance.*

TO ſuch kind of Tumors, theſe three ſorts following are to be referred.

I. Verrucæ, *Warts, being Tumors ſtanding upon the skin like Hittocks.* They are *known* very eaſily. They ariſe from, either a thick Melancholick and Flegmatick matter, or from ſuch Juyce as is ordained to nouriſh the Skin and Scarf-skin. They are *Cured* either by *Application* of appropriate Medicaments, ſuch as are the Juyce of *Willow-leaves*, and *Cichorium Verrucarium* or *Wart-cichory*, water which *Stands* on the *ſtumps* of *felled Oaks*. *Spurge Milk*, an *Onion* bruiſed with ſalt. They are divided into *Hanging warts*, which the Greeks term *Acrochordones*, being broad on the top, and ſmal at the bottom where they are faſtened to the skin, as it were by a ſtalk: *Thymia*, which are colored like time, are likwiſe ſmal at the skin, broad, hard and rough on the top, being ſmaller than the hanging-warts: and *Seſſiles* which the Greeks term *Myrmeciæ*, lower than the *Thymia*, ſcarſe bigger than Lupines, hard, broad-bottom'd, deep rooted, and cauſing pain.

II. *Clavi cornes*, which are wont to breed on the Toes and Soles of the Feet, by the preſſure and wringing of ſhoes; which ſomtimes of their own accord prove very painful, and are alwaies troubleſome to the goer. They muſt be *Noynted* with the blood of an Ele, and Oyl of Mercury; and when they are ſoftened, with Oyl of *Snailes*. When they are cut, ſmeare them with the Urin of a dog, and lay on a Plaſter of red Wax.

III. *Callus, Brawnyneſs*; is an hardneſs bread in the ſurface of the skin, in the palms of the Hands and the loweſt parts of the ſoles of the Feet. *It* has no deep Root, and is void of al pain. *It* may be pared of, after frequent waſhimgs and ſoaking in water.

Chap. VIII. *Of Tumors cauſed by ſolid parts falling from their due Situation.*

Article, I. *Of* Aneuriſma, Varix, *and* Elephantiaſis *by the Arabians ſo called.*

TUmors proceeding from ſolid parts falling down into or lying upon any part are many: we ſhal here ſpeak only of the *Aneuriſma*, *Varix*, and *Elephantiaſis* of the *Arabick Phyſitians* ſo called; the reſt we ſhal treat of in their proper places.

I. Aneuriſma, *is a Tumor ariſing from a breach in the inner coat and a widening of the outer coat of an Artery.* Tis *known*, becauſe it is a ſoft Tumor, beating with the pulſe, and for the moſt part, yeilding to the finger; and if it yeild not to the finger, nor pulſe, which may fal out in a great one: yet a noiſe as it were of boyling water is perceived, becauſe of the paſſage of ſpirits through narrow waies, and ſo it is diſtinguiſhed from an *Ecchymoma*. It *ariſes* through default of the Artery, which in reſpect of its inner coat, which is hard and thick, is opened; in reſpect of its external coat, which is thin ſoft and rare, it is widened. It is wont to happen, *either* by the *Violent Motion* of the flood, or by ſome external force;

moſt frequenly, when either an, Artery is opened inſtead of a Vein, or an Artery together with a Vein is hurt. For then, the external coate, as being ſoft, and of kin to the coats of the Veins, growing together, and the inner remaining open, the blood and ſpirit Iſſues through the hole and diſtends the external coat. Tis *Cured* with *Difficulty*, if ſmal, if new. Is in a *manner incurable* if old and great; and if Section be made, danger of death is incurred. The Cure is *undertaken.* 1. By Application of *Repellers* and aſtringents; where Emplaſtrum *Contrarupturam* is uſeful &c. 2. By Section or cutting; touching which ſee Authors.

II. *Varix is the Dilatation of a Vein.* It happens *Cheifly* in the *Thighes*, under the Navil, and ſomtimes in the temples. It befals men principally, yet hardly before they come to Age. Tis known by the ſwelling of the Veins, and the part being Lead-colored or black. It *ariſes* from thick Melancholick blood, which fals into the place, either through its own weight, or being thruſt thither by ſome violent Cauſe. *Varices* ought not to be *Cured* if they be critical, and free the patients from other Diſeaſes, as they are wont to do from madneſs. If they are to be Cured, they are hardly Curable by Section; but beſt of al by extraction, of which ſee *Aquæpendens.*

III. Elephantiaſis *of the* Arabians, *is a Tumor of the Feet, ſpringing from Melancholick, Flegmatick blood, and the Varices.* Herein the *Thighes* are ſwelled, of a Leaden-color, black and ful of Ulcers. It can hardly be Cured withour a continual and long Courſe of Phyſick.

Chap. IX. *Of Malignant Tumors.*

A ſingle Article. *Of the* Elephantiaſis.

MAlignant Tumors are ſundry, *Viz. Buboes, Carbuncles, Smal Pocks, Meazels, Elephantiaſis.* Of the reſt I have ſpoke or ſhal ſpeak elſewhere. I ſhal here treat only of the *Elephantiaſis.* Tis called alſo *Leontiaſis*, Satyriaſis, *and* Lepra, *Being a Cancerous Tumor of the whole Body, ſpringing from black choler infected with a Venemous quality, and ſhed into the whole habit of the Body, cauſing many Symptomes.*

I do not mean the *Elephantiaſis* by the Arabian Phyſitians ſo called, nor the Leproſie of the Jews.

The SIGNS are either of the Diſeaſes *beginning*, as frequent ſpots in the Body, roughneſs of the skin with riſings, like a Gooſe with the Feathers of, with many ſcales and chinks, eſpecially in the Face, Hands and Feet, falling off of the hairs. Or *coming to the height*, as a Tetter upon the tops of the fingers and the Chin, and the Eye-brows, which are thick and hanging over, hoarſneſs of the voice, ſweat eaſily turned into ſalt, which wil not melt in water; the blood being waſhed leaves grains and Sands in the bottom of the water. See the *Trial* of this Diſeaſe in *Horſtius* his Medicinal Epiſtles, *S.* 4. *Tim.* 1.

The CAUSE is a Melancholy Humor and black Choler; which ariſes either from external Cauſes, dry conſtitution of the Aire, and Diet ſuitable; or from internal, *viz.* An hot and dry diſtmper of the Liver. Alſo it contracts a Venemous and Contagious quality, whence the Diſeaſe comes to infect others. The CURE is *None* when the Diſeaſe is confirmed, tis *Difficult* when it is newly begun. Tis *Performed.* 1. By *Diet*, where *Viper Wine* is good, and the fleſh of Vipers boyled, their Head and Taile being cut off, Cider, Chickens fed with the fleſh of Vipers or Snakes. 2. By *Preparation of Humors* by the *Herba Kunigundis*, an Herb ſo called, with Fumitory, boyled in whey, *Straw-berry* water, *Dodder*-water, Decoction of *Tamariſk.* 3. By *Evacuation*, both by *Blood-letting*, which muſt be Practiſed in the ſpring, *viz.* In both Arms and on the Ankle: and by *Purgation*, where extract of *Blood-Hellebore* and whey with *Epithymum* boyled therein are good: likwiſe by the *Hemorrhoides.* 4. By uſe of *Bathes*, of freſh water, and of brimſtone waters &c. 5. By giving *appropriate* Medicaments, *viz. Hares*-blood hot, ſalts *Theriacal*, *Treacle*, *Bezoarticum Animale*, or Bezar-ſtone. 6. By *Mitigation* of the *Symptomes*: of which in their peculiar places. 7. By *burning*, of which the Authors.

As for the *Differences* there are four ſorts thereof.

I. *Alopecia*, in which is an obſcure redneſs, ſwelling of the Face, redneſs of Eyes, bleeding at the Noſe. It *ſprings* from blood and is more gentle than the reſt.

II. *Tyria*, ſo called from the ſcaly Serpent Tyrus, which caſts of his Skin in the ſpring. In this, there is whitneſs, Scales, dandruffe. It *ſprings* from Flegm.

III. *Leonina*, ſo termed from the Ruggedneſs

gedness of the Lyons fore-head. In which are prickings, bitings, Tetters. It *arises* from Choller and comes speedily to the Augment.

IIII. *Elephantiasis*, peculiarly so called, being greater than the rest and slower in its Augmentation, has its original from Melancholy, and is known by a cloudy blackness, knots and stupidity of the Patient. These sorts are seldom separated, and most frequently Joyned together.

Title, II. *Of Diseases of the Skin.*

Chap. 1: *Of Lentigines, Ephelides, Nævi-materni, Infantum Maculæ.*

ANother kind of external Diseases, are the disorders of the Skin under which are comprehended *Lentigines*, *Ephelides*, *Nævi Materni*, *Maculæ Infantum Maculæ Hepaticæ*, *Pruritus*, *and Malus Odor*.

I. *Lentigines*, Freckles, *Are smal specks of a yellowish brown color for the most part, seated somtimes in the Face, somtimes on the breast, somtimes on the hands.* They are *known* by the description, and because they are subject to ruddy people and such as are yellow-hair'd. They *arise* from blood adust, either by inward causes, or the Suns heat, Occupying the Scarf-skin, especially of the forhead, because being there thicker than ordinary, it retaines the Vapours longer. They are *Cured* by the waters of *Elder-flowers*, *Bean-flowers*, and *Scrofularia*. By Goats and Cowes-milk mingled with pouder of Glass. With *Cherry-tree-Gum* dissolved in strong Vinegar, with a little Oaten-meal. With these they must be washed or anoynted.

II. Ephelides, *are brown spots on Women with Child, which quarter upon their Foreheads cheifly, their temples or Cheekes, as large many times as an hand-breadth.* They are *known*, by the presence of such Symptomes as are wont to afflict Women with child, especially loathing of wine and meat, frequent spittings, and gnawings in the stomach. They *arise* from suppression of courses: in Virgins somtimes from eating of *Beetes*. A Pap made of the pouder of Bayberries and Toad-stool-water is commended, being smeared on in a Bath.

III. *Nævi Materni*, are spots and markes imprinted upon the Child in the womb by the Mothers Imagination. They are abliterated either by the *After-birth while tis hot*, or the blood thereof: more easily, if privately, as the common people imagine: or the distilled water of *Caryophyltata Montana*, if the infant be washed therewith; or with the *menstrual blood*.

IIII. Maculæ Infantium Volaticæ, *which Nurses cal the Red-come, are red and purple spots, which creep up and down the bodies of young Infants.* And if they touch any Orifice of the body as the Mouth, Nostrils, Eyes, eares, tis counted a *deadly sign*. For *Prevention* the Orifices must be wet with Rosewater tinctured with a litle Saffron.

Chap. 2. *Of the* Maculæ Hepaticæ, *Itch, and bad smels.*

MAculæ Hepaticæ, *or* Liver-spots, *are brown spots somtimes appearing and then vanishing, with a slight roughness of the skin, and falling of scales.* They are *known* by the description. Arise from a thick blood, which seeing it cannot be assimilated, it sends forth what is Excrementitious into the skin: if they continue long, they are accompanyed with quartan Agues. They are *Cured* with Diet, and after universal Medicaments, with *bathes*, before which *Treacle* must be taken; and afterward, they must be nointed with green Mustard-seed, reduced with water into the form of Pap, which must presently be washed off, so soon as it raises heat. Also *Mans-blood* destilled with *Brest-milke*, is good.

II. Itch, *is a pain which stirs up a desire of scraching, without any roughness or Exulceration of the* SKIN. The SUBJECT is, somtimes the whol Body; but especially the soles of the Feet, because they are covered with a great and broad Tendon, and with an hard Skin, so that the Humors have not egress. Tis KNOWN, by the sense. It *ariseth*, either from Choller, or thin salt Flegm, so as it may insinuate it self between the smallest particles; but clammy and roaping, that it

may ſtick faſter to the parts: which is bred of ſalt Meats, and Hot, through fault of an hot and Dry Liver. The CURE is *ſeldom* performed upon decrepit perſons. *None* at al, in ſuch as have the Conſumption, if it follow after Coſtiveneſs. Tis performed, 1. By *Attemperation* of *Humors*, by Goats-Milk Whey, and Syrup of Fumitory. 2. By *Evacuation* of the antecedent Cauſe, by *Jalap* and Syrup of *Peach-flowers*. By Hemorrhoides and courſes provoked, if their ſtoppage have been the Cauſe. 3. By *Mitigation* with *freſh-water bathes*, into which Mortar is to be caſt, and the Oyntment of Hartmannus. 4. By *Diſcuſſion* with the ſaid Baths, wherein Pelitory of the Wal, Mallows, ſharp-pointed Dock. Alum, Sulfur, Vitriol &c. muſt be put.

III. *Bad ſmel Vapors, ſomtimes from the whole Body, ſomtime from its parts, as the Arm-pits, Privities, Feet.* From the *whole Body*, either becauſe of ſome propriety of temper, or by reaſon of the blood and ſeed being corrupted in the Womb, or through ſome accident during the time of a Womans Belly-bearing. From the *Parts* by afflux of Excrementitious Humors, in moiſt bodies, which being thruſt thither, becauſe they cannot freely exhale, they conceive putrefaction and ſtench. In the *Cure* regard is to be had of univerſal Remedies. Let the *Diet* encline to dryneſs and reſiſt Putrefaction. Let alſo the foreſaid parts be often waſhed with a Decoction of *Scabious*, *Mirrh*, *Guaiacum*; and anoynted with an Oyntment of Orice-Roots, *Lignum-Aloes*, Baſſom of Citrons, and Nutmeg compounded together, or let them be ſprinkled with Pouders.

Title, III. *Of the Diſeaſes incident to the Hair.*

Chap. 1. *Of falling off of the Hair.*

THe third kind of external Diſeaſes, are thoſe of the Hair under which are comprehended, *Shedding of the Hair*, *Graynes of Hair*, *Dandruff*, and the *Plica*.

Shedding of the Hairs, is when they do for certain Cauſes fal from the Body. It is *divided* into certain ſorts, *viz.* *Defluvium*, *Calvities*, *Area*, and *Tinea*.

I. Defluvium, *is ſuch a falling of the Hairs, that either all or moſt of the Hairs, fal of here and there in ſeveral places.* It is *known* moſt eaſily. It *ariſes* from divers Cauſes. 1. From *defect* of nouriſhment, as is ſeen in perſons having the Conſumption, and ſuch as are ſick of a Malignant Feaver. In the Conſumption there is no Remedy. In other ſorts, the Head muſt be frequently rubbed, that the nouriſhment may be brought thither. The Head muſt be waſhed with a Decoction of Capillary Herbs. 2. From the *Pravity of Humors which Eate and corrode the Roots of the Hairs*. In which caſe, univerſal Remedies being premiſed, things moderately Diſcuſſing are to be uſed. *Ladanum* is to be mixed with Oyntments. 3. From the *Rarity of the Skin*. Then ſuch things as thicken the Skin, as *Ladanum*, Oyl of *Maſtich*, and *Myrtles*, a Decoction of the *Roots* of *Burdock*, made in Lie.

II. Calvities, *Baldneſs, is when the Hairs fal wholly of from the fore part of the Head.* Tis *known* by the Eye-ſight. It *Ariſes* from defect of Aliment, dryneſs of the Brain, either through Age, or ſome violent cauſe, as too much uſe of carnal Embracements. There is no *Cure* of baldneſs: yet it may be preveted and deferred. 1. By *good Diet*, in which biting, ſalt, and aſtringent things, ſtrong Wine, too much venery, ought to be avoided. 2. By ſupplying nutriment to the Hairs, by ſuch things as correct the dryneſs of the Brain. 3. By *drawing Aliment to the Roots of the Hair*. In which caſe Moderate frictions are good, and drawers joyned with things moderately aſtringent. *Ladanum* diſſolved in Oyl of Maſtich. Waſhing the Head with a Decoction of Fænugreek &c.

III. Area, *is the falling off of the Hair from certain parts of the Head, ſo as to leave bare & bald patches, here and there; ariſing from a bad and corrupt Humor, fretting the Roots of the Hairs.* It is *known* by the ſight. and by the differences; of which anon. It *ariſes* from the Humor named in the deſcription, eſpecially from Flegm, Salt, aduſt, and putrified, through fault of the Brain and an hot Liver, and corrupt meates, as toad ſtooles &c. The *Cure* is *eaſie*, if the Diſeaſe be freſh. If the place being ſubbed, quickly grows red. If the Extremities of the bald patches which border upon the hairy parts, begin to ſhoot forth

forth Hair afreſh. *Hard*, if the Skin be thick, fattiſh, and wholly void of Hair. If the Diſeaſe be old. *None* if the place being rub'd, grows not red. Tis *Performed.* 1. By *Evacuation* of the *Vitious Humor*, by purges and *Apophlegmatiſmes.* 2. By *driving back* the ſaid *Humor*, while it is in Flux. 3. By digeſting the ſame, when it is faſtened into the Skin by Medicines hot, and of thin parts, not very dry, leaſt the Aliment be Diſcuſſed. Firſt the *Weaker ſort* as *Southern-wood*, *reed-Roots* burnt; afterward *the ſtronger*, *Muſtard*, *Water-Creſſes*, *white-Lilly Roots* which ought at firſt to be more Liquid, and left ſo long on, til ſome alteration be perceived in the Skin. *Beares-Greaſe* helps by a ſecret Propriety, of which with the Hairs of a Bear burnt, Oyl of Maſtich-tree, and other things before recited, an Oyntment may be made. Tis *divided* two manner of waies. 1. Into *Alopecia*, which keeps in its ſpreading any kind of Figure, and happens in the beard and hair of the Head, in any Age: And *Ophioſis*, which begins on the hind part of the Head, exceeds not the length, of two fingers, creeps towards the eares with two heads, and in ſome as far as to the Fore-head, til the two Heads meet before. It cheifly haunts Infants. Herein alſo the Skin is ſuperficially Excoriated, the Color thereof changed, and if it be pricked, Wheyiſh blood Iſſues forth. 2. Into that which ſprings from the *Whore-maſters Pox*; that which comes from the Leproſie which is incurable; and that which comes from other *gentler* Cauſes.

IIII. Tinea, *when the Hairs fal off, one by one, being Eaten and conſumed by certain Worms.* Tis *known* becauſe the Hairs are ſhorter one than another and uneven. Smal worms thick in their ends. The color of the Hair becomes like that of Aſhes. It *ariſes* from Excrementitious Humors, penetrating into the Hairs with their nouriſhment, and therein by Heat changed into worms. Tis *Cured*, Univerſal Remedies being premiſed, by Abſterſion with docoction of *great Nettle*, *ſmal Centory*, &c.

Chap. 2. *Of the* Porriga, *and* Plica.

POrrigo, Dandruff, is when a man ſcratches or Combs his Head, and there fals ſomwhat out like Bran. It ariſes from ſerous, Cholerick, and Flegmatick Humors, which are carried to the Head with the nouriſhment of the Hairs; the more thin parts being Diſcuſſed, the thicker ſtick about the Hairs, and go into dandruff. They are attracted by an over-hot brain. The *Cure*, is by Evacuation of the peccant matter. By Diſcuſſion, and Abſterſion, with ſome aſtringents. A Decoction of *Vetches* and *Mallows*, is good in this Caſe.

II. Plica, *is a tangling and folding of the Hairs into Elfe-locks or thickly thrummed and matted bunches, ariſing from plenty of matter profitable to nouriſh the Hairs but unprofitable for nutriment of the Body, and cauſing divers Symptomes.* It is *known* by bunchings and complications of the Hair, pains vexing the Joynts and bones, convulſions, plenty of Lice. The Nailes of the great Toes are rough and ſcaly, black, like a Goat-Bucks-Horn. The *Cauſe* cannot ſufficiently be explained. Tis thought to be a Matter affording plenty of nouriſhment to the Hairs, but ſuch as is hurtful to the Body: as familiar to the Hairs as in the running Gout. Wheyiſh matter is to the joynts; or Polygonon and bone-glew to the Bones; whereupon, if the Haires be ſhaven, they ſhed blood. It *ariſes* from a peculiar corruption of the place, Aire, and water. Tis carryed thither with the Blood; ſomtimes Witchcraft may be joyned. The *Cure* is *hopeful*, if there be no pains. For ſo Excrementitious matter is thruſt forth into the hairs, and the Vertue becomes ſtronger. There is *no perfect* Cure, ſeeing the Cauſes are not ſufficiently known. Tis made worſe by Purgations and Blood-letting. Some waſh the Head with a Decoction of *Bears-breech*. A certain Countrey man uſed Baths to Cure this infirmity in which the Patients grew at firſt hairy, and then their hairs being cut off, they were Cured. See *Herculeſ Saxonia*.

Title, IIII. *Of Ulcers in Particular.*

Chap. 1. *Of the Gangræna.*

THe fourth kind of external Diſeaſes are *Ulcers*, under which are comprehended

Gangæna, *Sphacelus*, and *Ambustio*. *A Gangrene is a corruption of the soft parts especially, tending to mortification; proceeding from the Corruption, Suffocation, Dissipation, or extinction of the natural Heat in the Part.*

The SIGNES are the change of the Color in the part to black and blue, Imminution or Lessening of the Pulse and Sense, Abolition of the Heat. Motion remains, if the Head of the Muscle be intire: nor is there alwaies a tumor, but there is alwaies an Ulcer of necessity. The *Cause* is, the Corruption, Suffocation, Dissipation and Extinction of natural Heat in the part.

The CURE is evermore *Difficult*, especially if it be with afflux of Humors. If it be in the moister parts of the Body. If it be Joyned with the dropsie. It is accomplished. 1. By convenient *Diet*. 2. By due *Evacuation* with Blood-letting and Purging. 3. By *Strenkthening* the Heart against putrid vapors. 4. By *Defending* the sound part against the spreading Corruption by Defensatives and Antidotes.

The *Differences* are taken from the Causes, which ar either *External* or *Internal*.

I. One kind proceeds from *Too much cold oppresing the natural Heat of the part*. It is *known* in that sudenly a sharp and prickling pain aflicts the patient. The redness of the part is soon changed into a Leaden-color a coldness and nummedness is perceived as it were in a Quartan Ague. Tis *cured*. 1. By plunging the coold part into cold water or rubbing the same therewith. 2. By drinking down hot potions to procure gentle sweates to excite the natural heat. 3. After the heat is returned, by rubbing the part with warme liquors to which intent a Decoction of Turneps is good. 4. If the part be already gangrænated, the parts must be scarified and fomented with hot cardiack medicaments.

II. Another sort springs *from bindings which intercept the Blood and Spirits*. In the Cure, the ligatures must be losed, Medicaments discussive and resisting putrefaction must be applied. If the gangrene have made progess, we must act acording to the symptomes.

III. Another springs *from defect of Nutriments or Atrophia* so called. Tis known in that, excepting leanness, neither tumor, heat, nor paine are perceived. when pustles arise, paine and fever follows. In the *Cure*, prescribe a *diet* hot and moist, *smear* the Body with moistening oils. *Draw nourishment* to the part by Cupping-glasses without scarification, and anoynting with oyl of Earth-worms &c. If the Gangrain proceed, scarifie the part, and do as shal be here after specified.

IIII. Another sort springs from *External Heat which happens after great burnings*. If so, in the *Cure* prescribe a cool diet. Temper and purge hot humors scarrifie the part, and soone after wash it &c. Proceed not to an actual Cautery unless necessity compel.

V. Another springs *from the biting of venemous Beasts*. Tis *known* by relation of the patient, In the Cure. 1 The venome is to be drawn out by an actual Cautery, or scarrification. *Medicaments* resisting putrefaction, and such as draw, are to be applied, 3. *Ulcers* arising from scarrification or burning must be *Cleansed*, in which case we must not forget to use spirit of wine.

VI. Another sort springs *from the flowing of malignaut Humors into the external parts*. Tis *known* hereby, that in parts, especially those which are in the Extremety of the body, a blader appears, under which there is a black spot. there is a continual fever, fainting away &c. Tis *Cured* 1. By a drying *Diet*, into which coolling cordial Medicaments are to be put. 2. By *Blood-leting* and evacuation, if need be. 3 By sudorificks, which must be lustily plied in this Case. Dittamus of creet, Vincetoricum, and Treacle, are good in this Case. 4. By *Scarifications*, *Cupping-glaces*, and application of Leeches to the part affected, if blood be not otherwise, sufficiently drawn forth. 5. By *washing* the same, after Incision with salt water, or some other fomentation, according to the greatness of the Corruption. 6. By applying *Unguentum Egyptiacum*, or som resolving, drying and putrefaction hindering Cataplasmes, after washing. 7. If no ammendment appear, Causticks actual or potential, such as *Butter* of *Antimony*, or *Mercury Dissolved* in *Aqua fortis*, and precipitated with oyl of tartar, are to be applied. 8. By timely *Removing the Crust*, least new putrefaction arise thereunder.

Chap. 2. *Of the* Sphacelus.

SPhacelus *is a perfect Mortification of a Part which seases not only the softer parts of the Body, but the bones themselves.*

The SIGNFS are, there is no sence in the part, whether it be cut or burnt. Coldness

neſs, ſharpneſs, and blackneſs of the Fleſh. At laſt it ſmels like a dead Carcaſs, and the skin is by the fingers ſeparated from the fleſh beneath it.

The CURE conſiſts in cutting off, the manner of which ſee in Practitioners. And *then*. 1. Some part of the ſound part, being very wel bound muſt be cut off, rather than the cutting ſhould be practiſed upon the in infected part. 2, Section muſt be made in the fingers and Toes. 3. In the Feet, if the Diſeaſe reach above the ankle, the thigh muſt be cut off below the Knee. 4. In the Arme, very little of the ſound part muſt be cut of &c. See *Fabricius Hildanus*, in his Treatiſe of the *Gangræna* and *Sphacelus*.

Chap. 3. *Of Burnings.*

COmbuſtio, *Burning*; *is a ſolution of Continuity in the Scarf-skin and commonly in the skin it ſelf, ſomtimes in the Muſcles, Veins, Arteries or Nerves, by the force of fire.*

Touching the *Signs* tis needleſs to ſpeak, ſeeing burning is manifeſt of it ſelf. The *Cauſe* is either *Fire, Scalding water, Oyl* or *melted metal* or *Fat* &c. The *Cure* varies according to the differences In the *firſt place*, the fire muſt be fetcht out. In the *next place* leaſt pain attract the Humors and blood, we muſt uſe repellers and defenſatives. *Then* we muſt by Diet, purging, blood-letting, Cupping-Glaſſes and other means diminiſh the ſame. A Mucilage of Quince-ſeeds, Extracted with Roſe-water, and mixed with Line-ſeed Oyl, muſt be uſe at the beginning, which wil ſatiſſie al Indications.

The *Differences* of burnings are Various.

I. One ſort is *very ſlight*, which is *known* hereby, that the burning thing which cauſed it, was light, the skin is red, the pain moſt bitter and pricking, the place is puffed up, puſtles ariſe ful of clear and white water. At laſt the Scarf-skin comes off. Tis *Cured*. 1. By *taking out the fire, that no Puſtles may ariſe*. Which is performed, either by ſteeping the Member in hot water, or by Application of a Linnen Cloath wet in Lie, or Application of Onions beaten in a Mortar with ſalt; which nevertheleſs, is not good for burns in the Eyes. Exceeding Commendation is given to an *Oyntment* made of one part of Oyl-Olive, and two parts of whites of Egs, beaten together, and frequently anointed on, with the Feather of an Hen. 2. By opening the bladders, the third day after their ariſing, when the Scarf-skin begins to breed on freſh.

I. Another ſort is *indifferent great*, which is known hereby, in that the part is forthwith ſwelled and inflamed. Puſtles ariſe, wherein is contained a thin ſubtile water of a yellowiſh color, the Patient complaines his skin is ſtretched. Tis *Cured*. 1. By *Cutting* the *Puſtles*, that the hot and ſharp Humor may flow out. 2. By application of *Defenſatives*, leaſt Humors and blood may flow to the part affected. 3. By Application of tht Oyntment of Fabricius, made of *three* ounces of freſh butter, waſhed in Roſe-water. *Oyl of Violets, Yolks of Egs, and of ſweet Almonds, of each half an ounce. Barley meal one ounce and half. Saffron one ſcruple, Mucilage of Quince ſeeds one ounce. Wax as much as ſhal ſuffice.*

III. Another is *extream*, which is known hereby, that in the very moment that the thing burning ſticks to the body, puſtles ariſe, but fal ſoon after, the skin beneath is *black* or *livid* and *Lead-colored*. If pricked, it feels dully. When the Cruſt fals off, a putrid and profound Ulcer ariſes. Tis *Cured*. 1. By cutting the puſtles or bladders, that the water which is contained in them, may be dryed up. 2. By *Separation* of the Eſcar the ſecond or third day, which if it cannot be effected, it muſt in many places be cut with a Pen-knife. See *Fabricius* his Oyntment. 3. If a *Gangræna* begin, the Cure muſt be applied thereunto. 4. The Eſchar being ſeparated, the Ulcer muſt be clenſed, filled with fleſh, and covered with a Skar.

IIII. Another is, from *Gunpouder*, in which the grains of the pouder, muſt be taken out with a Needle, or ſome other Inſtrument. If they cannot be taken out, the puſtles muſt be ſuffered to ariſe. If they ariſe not, they muſt be raiſed, by veſicatories, and cut; the pouder muſt be taken forth, and the place muſt be waſhed, with a Decoction of Fenugreek &c. Another ſort comes from thunder, in which caſe ſweat muſt be provoked by ſome Antidote. The Arteries, Lips, Tongue, Noſtrils, muſt be anointed with Treacle wine. The Eſcar being removed, *Mundificatives* and *fleſh-breeders corrected with Bezoartick* are to be applied. If a bone be broken, the Vulgar aſtringent Cataplaſmes are to be avoided.

V. One ſort is of the *Face*, in which the Medicine of *two Eg-whites, Oyl of Roſes two ounces, Roſe water one ounce* has place. Another is of the *Eyes*, in which caſe warm

breſt

breſt Milk muſt be dropped on. If a Cruſt be raiſed, we muſt uſe Emollient fomentations, leſt the Eye lids be drawn back. The skin muſt many times, with both hands, be drawn back. Another, is of the *Joynts*, in which the afflux of Humors muſt be ſtopped. Pain aſſwaging Topicks are to be applied; leaſt the Nerves be contracted, or the joynt become crooked, we muſt be very Vigilant &c. But touching al theſe ſee *Wilhebmus Fabricius Hildanus his Treatiſe of Burnings.*

Title, V. *Of Luxations in Particular.*

Chap. 1. *Of* Luxations *of the Jaw-bone, the* Clavicula *and the* Vertebræ.

THe firſt kind of external Diſeaſes are *Luxations*; and *they* either of *upper Limbes* or of the *Lower*. To the former belong, the *Luxation* or *Disjoynting* of the *Jaw-bone*, the *Clavicula*, the *Spine and Ribs*, the *ſhoulder*, *the Arms*, *the Hands and finger joynts.*

1. The *Luxation* of the *Jaw-bone* is cauſed towards the fore part of the Face, the foremoſt and ſharp proceſs like a beak, being ſlipt beneath the Jugular. Tis *known* hereby, both becauſe the nether Jaw ſticks out foremoſt, and the proceſs ſticks out by the ſaid jaw: as alſo becauſe, the mouth continues alwaies open. It *ariſes* from too much opening the mouth and gaping, and ſtretching the Jaws, whether it be by yawning, or by taking ſome burthen by the teeth, and lifting it high up; yet is it hardly done, becauſe of the ſtrength of the Muſcles, wherewith it is faſtened to the upper parts. The *Cure* is undertaken. 1. By *Repoſition*, leaſt the Belly void choler, or vomiting be raiſed; and it muſt be ſuddenly procured, leaſt the Brain be drawn to conſent, by reaſon of the Nerves inſerted into the temporal Muſcles: touching which, ſee Authors. 2. By *Præcaution* of *Inflamation* and other Symptomes. If the Patients neck be pained, a vain muſt be opened in the Arme. 3. By *Retention* of the replaced Bone &c. Tis *divided* two manner of waies. 1. Into that *of one ſide of the Jaw*; and then the jaw with the Chin is bent towards one ſide, the mouth is diſtorted, the teeth anſwer not one to another. And into that of *both ſides of the Jawes*; and then the whole with the chin hangs over towards the breſt. The temporol Muſcles are ſtif. A certain eminency is perceived in both parts. 2. Into that which happens only *to perſons of ripe years*, and that has been here deſcribed: and into that which betides *Infants*. in whom becauſe the *Mandibula* is divided into two parts, and is joyned together in the middle of the Chin by a large griſtle, the ſaid griſtle being looſened by afflux of Humors; or the bone being ſeparated from the griſtle, which in grown perſons turns to a bone, it may be disjoyned towards the right or left ſide.

II. The *Clavicula* is disjoyned either towards the *Breaſt-bone*, or contrarywiſe towads the top of the *Shoulder-blade*; but ſeldom, by reaſon of its firme connexion with both the bones. Tis *known*, becauſe the ſhoulder ſwels, and in the place from whence the *Clavicula* is ſlipt, there is a manifeſt Cavity. Tis *Cured* with difficulty, and for the moſt part, the Arme is deficient in ſome of its motions. A ſtrong binding muſt be uſed.

III. Luxation of the *Vertebraes*, is either *outwards*, or *inwards*. Tis eaſily Cured in Children, hardly in perſons grown up.

Chap. 2. *Of* Luxation *of the* Humerus, Cubitus, Radius, *and the Fingers.*

TO the *Laxation* of the upper Limbs there likewiſe belongs, *Luxation* of the *Humerus*, *Cubitus*, *Radius* and Fingers.

1 *The* Luxation *of the* Humerus *or Shoulder is when the Head thereof, which is round, inſerted into a ſhallow Cavity, and fenced with a very looſe Ligament, ſlips out of its proper place.* It *ariſes*, for the moſt part, from a violent cauſe, ſtretching of the Arme &c. Tis *divided* into that which is cauſed under the *Arm-pit*, and then ſomwhat round and hard, is ſenſibly felt under the Arme, the *Cubitus* ſuddenly becomes more diſtant from the Ribs. It may be *reſtored* either by turning round the Head of the *Humerus* about the neck of the *Scapula*, or by the Heel, or by a Ladder, or a peſtle, or by putting the Shoulder under &c. And into *that* which is *made forward*. Then there is in the hinder part an Unuſual Cavity, and

& in the fore part there is ſeen an over great protuberancy, the Head of the *Humerus* is diſtorted to the breſt. The *Cubitus* inclines to the hinder parts. In the Reſtitution, a contrary motion is to be made; and although the member be not made ſhorter, yet becauſe we unfold and looſen the Head, ſome extenſion muſt be made, though but ſmal. See *Aquapendent.*

II. *Luxation* of the *Cubitus* ſeldome happens, both becauſe it is a joynt variouſly Figured; as alſo becauſe the ligaments are exceeding ſtrait; and therefore tis likewiſe repoſed in its ſeat with difficulty. It *Happens.* 1. Either towards the fore-part: and then we cannot bend our Arme being ſtretched forth, and our Cubit is made ſhorter. An unwonted Tumor appears in the fore part, and a Cavity in the hinder part. Tis *Cured* by Extenſion Obilquely, and repoſition of which there are divers waies. Either towards the *hinder part*, and then a Tumor appears in the hinder part, a Cavity in the former. By *Extenſion*, which is hard in this Caſe, when the freſh Diſlocation is repoſed only by the hands. 2. Or *towards the outſide.* Then the Tumor is in on the outſide, a Cavity on the Inſide. Or towards the *Inſide*, and then al things go contrary. And extenſion being made, the impulſe of the *Cubitus* ought to be made, to the contrary ſide. Anadyne, and aſtringent Medicaments muſt be applied after the Repoſition. 4. Or the *Radius follows*, and then the diſtance of the *Cubitus* form the *Radius* is perceived by the touch; or it *ſubſiſts.*

III. The *Luxation* of the *Radius* is wont to happen, towards the external part. And then a ſwelling appears in the outward part, the *Cubitus* and *Radius* ſtand gaping one from another. Extenſion being made, tis eaſily reſtored to its place.

IIII. The *Wriſt* is diſlocated. 1. Either towarſts the *hinder part.* Then the fingers cannot be ſtretched, becauſe the Tendons and nerves are compreſſed by the bones. Or to the *fore part.* Then there's a Tumor in the fore-part of the Fingers. The fingers cannot be bent. 2. Either *Inward* or *Outward.* Then the ſwelling is in that part, the Cavity in the contrary part. See the Cure in *Aqua pendent.*

V. The *Fingers* are disjoyned towards the fore part, the hinder part, and ſide-waies. The *Signs* are moſt manifeſt becauſe thoſe Joynts are without Fleſh.

Chap III. *Of* Luxations *of the Thigh, Knee, and Ankle.*

TO the Luxations of the nether Limbs pertain, the Luxations of the *Thigh*, the *Knee*, and the *Ankle.*

I. The *Thigh* is hardly diſlocated, both becauſe of moſt ſtrong Muſcles, and the abundance of their fleſh; alſo becauſe of the deepneſs of the ſocket of the receiving bone; and likewiſe becauſe of two ſtrait and ſhort Ligaments. Tis likewiſe *reſtored* with *Difficulty*, eſpecially if the Luxation contract a callus and ſo grow hard, and humors flow in about the Head of the Thigh. Repoſition is *effected*, either without extenſion, or with extenſion performed by the Hands, or by certain cords fit for that purpoſe. The Thigh is diſlocated. 1. Either toward the foreſide. Then the Thigh being ſtretched out cannot be drawn in, becauſe the *Muſculi Inflectentis*, are compreſſed by the Head of the Thigh-bone. The Urin is ſuppreſſed. The Buttocks appear rugged. Or towards the *Hinder-ſide.* Then the Thigh cannot be held forth, becauſe the *Muſculi extendentes* are affected. That leg becomes ſhorter than the other, becauſe the Cavity is in the lower, the Head in the upper place. The Heel does not touch the ground. The Head of the Thigh appears through the Buttock. 2. Or *inwardly*, then the Knee, the Leg and Foot bear outwards. The Thighs cannot be bowed towards the groins. Juſt againſt that place which is between the ſtones and Fundament, an evident Tumor, appeares, in the outer part of the *Sinus.* Or *externally.* Then between the Cod and Fundament, the part makes a Cavity; but by the Buttocks, tis raiſed into a Tumor. The Knee, Foot, and Leg bend inwards. The Heel touches not the ground, but the Sole.

II. The *Knee* doth not ſo ſone fal out, becauſe it has too Ligaments; alſo it has an Head and a double cavity. Tis diſlocated, 1. Either *imperfectly*, where impulſe is required only to the contrary part. Or *perfectly*, and when extenſion is neceſſary, 2. Or into the *external*, or *internal*, or *Back* part. Then the Tumor is in an unwonted place, the *Sinus* appears in a contrary ſituation: the figure is departed, the motions are weakened and periſh.

III. The *Talus* or *Ancle* is Diſlocated, 1. Towards the inſide. Then the lower part of the

the foot, is turned externally, or towards the *outside*, and there tis contrarily turned. 2. Towards the forepart. Then a broad and strong tendon in the Heel, becomes hard and steched, and the foot becomes less. Towards the *hinderpart*; then because the joint is slipt to the Heele, the Heel is hidden, the sole of the foot is greater and the foot longer. The Cure ought to be made by Extension and Reposition.

IIII. The Bones of the *Pedium* and *Tarsus* never suffer Luxation. And those of the *Toes*, seldome, because they are underpropped with most strong ligaments and many tendons.

Title VI *Of Fractures in Specie.*

Chap. 1. *Of the more usual Fractures of the* Bodies.

THe third kind of External Diseases are *Fractures of bones*; which are either *more* or lese frequent. To the more frequent sort belong.

I. The Fractures of the *Brachium* viz. that Bone which is between the Elbow and the wrist; which if it happen in *both the bones*, seeing they have no propor stay, and the neighboring parts are easily hurt, it is the more dangerous: if in *one*, and that the uppermost which needs less extension, it is lesse dangerous: if in the *nethermost*, it is so likewise because the Elbow serves for a stay; and a swathing band is more safely hung on. The *Cure* requiers *Extension* and *Direction of the broken bone*, with joyning together, and reposition. It grows together within the space of thirty daies.

II. Of the *Humerus* or *shoulder*, whose bone being great, and requiring long time to breed a Callus, it is forty daies in growing together.

III. Of the *Crus* or that part which reaches from the knee to the foot. In which either Both bones are broken; and the whole leg may be bowed in: or the *Tibia* or shank bone, and the whol bone, as in a place without flesh, may easily be seene. And it is cured with greater difficulty, seeing there is need of greater extension. Or the *Fibula*, and the broken part bendes inward, and the Patient can sooner set his foot to the ground because the Tibia bears most of the bodies weight. These bones grow together within the space of forty daies.

IIII. Of the *Femur* or *Thies*, which If it be broken *towards the knee* or in the midle and diligent care be taken, they escape without halting. If towards the *Hip* commonly they halt after it. Both because, the bowing tending outwards, it is easily crooked Towards the inside, and towards the outside it bunches out like a bow as also because, being but one single bone, it cannot easily be kept in its place, It growes together in the space of fifty daies.

Chap. 2. *Of less Frequent Fractures.*

TO the less ordinary Fractures, there appertain the Fractures of.

I. The *Nose*, which is either equally flatted, so as to make a saddle-Nose; or it is broke only on *the one side*: or it is writhen aside by the *Gristle*: or the *bones* thereof are *broke* into *smal fritters*. There is Joyned, somtimes a wound, and somtimes an Ulcer is raised within the Nostrils. Unless the Nose be immediately rectified, it must for ever remain deformed.

II. Of the lower *Jaw-bone*, whose bone is either broken so athwart, that the *Bones nevertheless do in some measure hold together*: or so, that *one bone sticks out above another*, and one tooth sticks out beyond another. They are consolidated within twenty dayes, unless Inflamation happen. Also the teeth remain sound,

III. Of the *Clavicula*, or channel bone, which is broken either athwart, and is easily reduced into its natural seat by extending and compressing the same with a mans fingers: or *long-waies*, which has alwaies some Eminency, which can hardly be brought into order. Its fracture is knowne by the touch and by the pian. It is soddered together within the space of twenty daies.

IIII. Of the *Scapula* and that either *in respect of* the *shoulder tip*. and then Inequality is perceived, if the hurt part be compared with the sound or in *respect* of the *broad part* Then a certain cavity is perceived by the touch. the Arme just against it, is benummed. If the fracture be in the *neck of the Scapula*, or in the *Jointing of the shoulder*, Inflamation is soon caused, because of the veins, Arteries and

and nerves which ſpring from the Vertebraes of the Neck.

V. Of the *Breſt-bone*, whoſe fracture is known, by the bones giving way when preſſed with the finger, by ſhortneſs of breath, &c. and it is dangerous becauſe of the Neighbourhood of the noble parts.

VI. Of the *Ribs* which are either ſo broken that the extremities of the broken bones, do neither go in, nor ſtick out: And then few are either Feveriſh or ſpit blood. Or ſo as that *the Ends of the Bones are out of their places.* Then the fleſh above the broken Rib is blown and heaved up: and if the place be preſſed with the hand, a noiſe is heard of the departing Air. Inflamation, Feavers, Impoſtumes, do for the moſt part follow. Or the *whole Ribs are not broken.* Then there is neither great pain, nor a Feaver.

VII. Of the *Back-bone*, which frequently, by reaſon of the hurt enſuing to the ſpinal marrow, the Membranes and the Nerves, eſpecially if the fracture happen by the *Vertebra's* of the Neck, proves *deadly*: eſpecially if a palſie either of the Arms and Hands, or of the Legs and Feet, do follow thereupon.

VIII. Of the *Patella* or *Whirl-bone* of the Knee, which is known, by inability to go, and an hollowneſs which is perceived in the place of the fracture. It *happens* either *long waies*; and then the bones are eaſily joyned together again. Or athwart or ſlanting. Then no art can ſo help it, as to hinder the Patient from halting.

IX. Of the *Bones of the Feet*, which is wont to be cauſed by an heavy and ſtrong thing. 'Tis eaſily *known* by ſight and touch, becauſe the parts are fleſhleſs. It is not ſo dangerous. See *Galen upon Hippocrates of the Joynts and Fractures.*

And ſo much ſhal ſuffice to have ſpoken, touching External Diſeaſes.

THE SEVENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Touching Feavers.

HItherto we have treated of the external Diſeaſes of the Body. The *internal* are either *univerſal*, which affect the whol Body; or *Particular*, which vex ſome parts only. The *Univerſal* are *Feavers*. A Feaver is conſidered *generally* or *ſpecially*. Generally conſidered, 'tis divided into *Non-putrid* and *Putrid*, *Hectick*, *Malignant*, and *Peſtilential*.

Title, I. *Of Feavers in General.*

A Feaver in general, is an hot Diſtemper of the whole Body, ariſing from an Heat Preternaturally kindled in the heart, and by means of the ſpirits and blood, through the Veins and Arteries diffuſed into the whol Body, and hurting the natural actions thereof by a Crowd of Symptomes.

The *Part affected* is the Heart, wherein the heat is firſt kindled, and ſoon after the whol Body, at leaſt in reſpect of the noble parts, ſomtimes. For the Heat being diffuſed, poſſeſſes the parts, either Habitudinally or Habitually. Alſo their temper conſiſting in the innate and influent Heat, is changed. Now this *Diſtemper* is joyned ſomtimes with dryneſs, other whiles with *Moiſture*. Hence, though the feaveriſh heat do alwaies tend to dryneſs: yet oft times the diſpoſition of the Body, upon which that heat acts, and the moiſture, do hinder the Body from falling into a Morbifick Dryneſs.

The *Cauſe* is, whatſoever kindles Heat in the Body. Now heat is kindled. 1. By *Motion*, whiles the reſt of the parts, by frequent ſmiting one againſt another, cauſing a conflux of more Humors than can be diſcuſſed, do grow hot. 2. By *Putrefaction*, while by the external Heat, the internal is called forth.

3. By

3. By *Contact* and *Nearneſs of ſome hot thing.* 4. By *ſtopping* of the *pores* and interception of ſharp vapors and Sooty ſteams, which makes the body unhealthy; and this is the *Principal Cauſe*, without which other Cauſes can hardly effect any thing. 5. *By the mixture of ſome hot thing.*

The CURE of a feaver in general is performed by *Alteration*, wherein ſuch a progreſs muſt be uſed, as that the Cauſe be not fomented: and by mitigation of *Symptomes.*

The principal *Symptomes* are. 1. *Thirſt*, the inner coat of the ſtomach, being either parched with the burning heat; or ſoaked with an hot, ſharp and nitrous Humor. 2. *Hiccuping*, ſharp and biting Humors twitching and nipping the Stomach. 3. *Vomiting*, either by reaſon of an hot and Chollerick Humor; or a very cold Humor; or of a thick and Clammy matter; or ſome Vapour. 4. *Looſneſs of the Belly*, when the ſtomach is ſo far irritated, that it can in no wiſe embrace or digeſt the meate: and when liquors extreamly cold are drunk down. 5. *Dryneſs*, *Blackneſs* and *Roughneſs* of the Tongue, by reaſon of ſooty Vapours, which ſo burn the ſame, that the Spittleiſh moiſture is conſumed, which ariſe ſomtimes from a clammy humor ſticking about the Teeth & jaws, & beclam & fur the Mouth. 6. *Lipothymia*, and *Syncope*, *Swowning* and *Fainting*, which ſomtimes proceeds from the permicious nature of the Humor, and ſomtimes from ruſty, green or black Choler fermenting, and coming out of the Veins into the Heart. 7. *Shortneſs of Breath*, occaſioned by the oppreſſion of the Midrif through the fervency of green Choler boyling about the heart, or by plenty of Humors: ſomtimes tis cauſed by the heat of the Heart or Lungs, when Choler and putrified matter, is inflamed about thoſe parts, or when matter ſwelling and fermenting in the Veins, ruſhes violently and ſettles it ſelf thereabouts. 8. *Head-ach*, *want of Sleep*, Apileptick Convulſions &c. Of which in their places.

Title, II. *Of Unputrid Feavers.*

Chap. 1 *Of the Feaver* Ephemera.

UNputrid Feavers are either the *Ephemera*, or the *Synocha ſimplex.*

The Feaver Ephemera *is a feaver which ariſes from the Inflamation of the Vital ſpirits in the heart, and continues the ſpace of one day.*

'Tis termed *Ephemera*, becauſe it tranſcends not the natural day; as the Beaſt Ephemeron, and Colchicum Ephemeron, a plant ſo called.

The SIGNS are: A ſudden heat ariſes in the Body, no loathing of meat, or wearyneſs without cauſe, deep ſleep, or frequent Yawning having preceded, with none or very ſlight ſhivering, unleſs the Body be ful of bad juyce, diffuſing much and biting expiration, which by reaſon of the colds ſtopping the skin, or the cloſing up of the ſecret paſſages, being ſuppreſſed, inites the Nerves. The *Urin* in color, ſubſtance, and ſediment, is little or nothing differing from the natural, unleſs the Cauſe which brought in the Feaver, have raiſed ſome extraordinary mutation in the blood. The pulſe is more quick and frequent than ordinary: but yet, even, ordinate, great and ſtrong. Inſpiration is greater and quicker than expiration.

The CAUSES are procatarctick, of which in the differences.

The CURE is *eaſie*, unleſs it change into a Synocha imputrid, in a youthful and ful body; or into a putrid, the fourth or fift day, in a body Cacochymical: or into an hectick in an Hot, Dry, thin body. 'Tis *Abſolved.* 1. By *Alteration* through cooling and moiſtening things, given inwardly, and applied outwardly to the Region of the Heart, the pulſe and forehead. 2. By *Evacuation*, or opening a Vein if there be a plethora: or by gentle Purgation, if it ariſe from a redundancy of evil Humors and ſome light obſtruction. 3. By *ſtrengthening the Stomach*; Regard being had to the Humor and Symptomes.

The Differences of the Feaver Ephemera are taken from the cauſes.

I. One sort comes from *Cold Air striatning the skin.* Then the beginning is without shivering. The Urine and pulse are little changed, the Heat is more moderate in the state. 'Tis *Cured* by removing the Cause.

II. Another springs from *Buboes*, which is known by the presence of Buboes, by a swift and great pulse, by much heat, by a ruddy Face. 'Tis *Cured* by blood-letting, by which if blood be sufficiently taken away, the Bubo appearing a little, vanishes away by the use of repellers or relaxers: if not, it must by fomentation be brought to suppuration. *Vide* B. 2. *de Bubone.*

III. Another from *straitness* of the skin, which is known by the hardness and compactness of the Patients skin, other things being as in other persons healthy. It *arises* from plenty of blood, cold binding, or dryness. 'Tis *Cured.* 1. By *Blood-letting*, if the blood offend in quantity. 2. By *Purgation*, matters being premised, where there is plenty of thick Humors, and sweat is wont to follow. 3. By relaxation with hot and moist things, temperate baths, moderate frictions, frequent washing, if it proceed from cold.

IIII. From *Crudity*, and that *nidorous*, which is known by the presence of such signs as attend a Diseased Stomach. 'Tis *Cured*, 1. By *Vomit*, if stomach sickness and Aptitude to Vomit, be present. 2. By *Purgation*, if there be danger in Vomiting. 3. By *Corroboration*, with Medicaments whose quality is opposite to the peccant Humor.

V. Another springs from *Heat of weather, Anger, Sad Pensiveness, Watchings, Wearyness*, &c. Of all which, consult with Practitioners.

Chap. 2. *Of the* Feaver Sinocha Simplex.

THe *feaver* Synocha *simple, or the* Ephemera *of many daies, is a Feaver without putrefaction, arising of the Boyling and working of the spirits and blood, without remission, lasting three, four, or more daies.*

'Tis termed also *Inflativa* or *Puff-up*, because when the blood works and boyles, the Vessels are distended, and a wearyness of the body is perceived.

Its SIGNS are wearyness which comes of it self, without any exercise of the Body. Heaviness about the temples and forehead. A certain Itch of the Nostrils, a gentle Heat. Moistness of the skin, with distention of the Members. A pulse great, full, frequent, quick. Difficulty in fetching breath. Urine thicker and more red than ordinary.

The CAUSE is, the working and boyling of thin blood which arise from the hinderance of Transpiration, in a plethorick body, which sends forth many hot Vapours.

The CURE is not very *hard*, because it seizes for the most part strong bodies, or temperate ones, or such as are hot, or moist, of middle Age, of a fleshy, square, Aldermanlike constitution, unless it degenerate into another sort. 'Tis *allayed and determinated*, sometimes by sweat, or by plentyful Nose-bleeding, within the fourth, or at most the seventh day; unless through some very great Error of the Patient, the Physitian, or the Assistants of the sick, it turn to a putrid feaver, or a greivous Disease which is wont to spring from fullness. 'Tis *performed.* 1. By *Blood-letting*, by which the Patient is cooled, and the encrease of Vapors is diminished: but it must be speedy, little in quantity, and divers times celebrated. 2. By *Evacuation* of the first Region, least more fumes be added to the store. *Tamarinds, Rhubarb, Syrupe of Roses solutive, Cream of Tartar, are good.* 3. By Alteration, which ought to be performed, by cooling potions, the spirit of salt and vitriol, being mixed therewith. *Clysters, Oxyrrhodines, Epithemes*, Bathes for such as are accustomed to them, but not before the Rigor of the Feaver be over. 4. By *Corroberation*, with *Manus Christi perled, Diamargaritum Frigidum*, Conserve of *Roses Vitriolated*, of *Wood-sorrel* &c. 5. By a cooling and Moistening Diet.

Title, III. *Of Putrid Feavers in General.*

A Putrid Feaver is *Generally* or *Spetially* considered.

A Putrid Feaver in general, is a Feaver, which arises from hot Vapors, raised out of the Putrefaction of humors, which affect the heart, with a præternatural heat.

SIGNS thereof, are: *Invation* with shivering, and shaking, no antecedent Cause having preceded; No, nor no procatarctick, unless the body be so disposed that a smal matter affects it. *Accessions* and Paroxysmes or fits,

fits, which yet agrees not with al. The *heat* at the beginning, is not biting, by reason of suffocation; biting in the augment by reason of a Fuliginous excrement. The *Urine* is crude, or obscurely digested. The *Pulse* is at first small, the contraction swifter then the dilatation, by reason of plenty of sooty excrement. It *abates* upon sweat or some other Evatuation.

The *Causes immediate* are, putred vapors, sharp, biting, plentiful, so as they cannot be discussed. The *Mediate* is the putrefaction of humors, whose cause. 1. In the *first assault* of the Fever, is either *their bad nature*, contracted from meats of bad juyce, which soon putrifie, from il preperation and use of diet, and the faults of the Parts which serve concoction; or an *External agent*, where hindrance of *Transpiration* has place, *or* from the straitness of the pores of the skin: for hot things, in an hot place, if they have not freedom of air, doe suddenly putrifie; *or* from the obstruction of the Vessels and Passages in the Body. *A Feaver Ephemera*, especially in hot Natures. *Heat* arising from the Nonnatural things; *Nearness* of putrified humors. 2. In the *Continuance*, is the *fault* of the parts ordained for Concoction. *Inquination or Defilement* remaining after the Paroxysme, which inserts the humors herein.

The *Cure* for the most part does not oppose the Feaver so as to neglect the Cause, especially if the Remedies for the Feaver doe encrease the Cause, unless the Feaver be very great. Yet sometimes we may resist the Feaver and neglect the Cause, namely when it is remiss. The safest way is so to direct the Cure to the one, as not to neglect the other. It is *performed*, 1. By *Blood-letting*, which must be practised, 1. For evacuation to put the blood in motion and to cool the same. 2. In continual Feavers on the third day, in intermitting Feavers after the third day; in all having first given a gentle Lenitive, if any thing reside in the first waies, and when the disease is most remiss. 3. When the evil humors are not in the first passages, but are mingled with the blood in *Vena Cava*. 4. When there is plenitude. It must be repeated the same day, if it be done for *Evacuation*: some time after, if for Revulsion.

II. By *Vomiting* rightly instituted, with *Aqua Benedicta Rulandi*, Asarum Roots &c.

III. By *Purgation*, & then Lenitives ought to precede, by reason of the stomachs weakness; and plenty of humors in the Mesaraick Veins, and stoppage of the Belly at the beginning; either by Clisters or Potions. Stronger Medicaments ought to follow. 1. There having *preceded* both *Coction*, which must be observed in Feavers, especially such as are continual and acute, according to the precept of *Hippocrates*; by which Nature assisted with art makes separation of putrid humors mingled with the blood: & *Præparation*, which opens the passages and waies by opening Medicaments (here Cichories, Endives, and Sorrels have place) and impediments in the humors are removed, where syrupe of *Vinegar*, of the *Juice of Citrons*, have place, and a dram of *Spirit of Tartar compound*, which must be given with caution in cholerick natures, by reason of the Treacle water. 2 Which *must be omitted*, if the Humors are not in the first passages, but mixed with the blood in the Veins. If the Humors are turgent, that is, either move to some determinate part, or are so disposed, that they may run violently into some part. For the feverish matter is wont at the beginning, though little, because like Leven it corrupts the rest of the humors, to be moved by nature, and either to be thrown out of the body, or to be thrust into the more ignoble parts of the body.

IV. By *sweating* provoked by *Sudorifick* medicaments, and that *not very hot*, least the Fever be increased, yet *sufficient*, least the matter should be only stirred, *administered* after other evacuations, least Transpiration should be more hindered. Yet is it allowable in the beginning, sometimes to give strong sudorificks, that the said ferment may be dissipated to dispose the patients body to sweat through the whol disease, that the body may freely transpire. To repeat it as often as need shal be, that the matter may be accustomed to expulsion. Salt of *Wormwod*, of *Centory*, of *Carduus benedictus*, Spirit and Rob or quiddinie of dwarf-elder, of Elder; Magistery of *Mother of Perle*, of *Crabs-Eyes*, *Antimonium diaphoreticum &c.* are commended.

V. *Diet*, in which are principally considerable 1. *Meat*, which ought to be of good juice, easie of digestion, of small excrement; so that great respect be had to the patients strength, the disease, and morbifick Cause. The times of the disease it self must be observed, least the patients strength be overwhelmed. The Quantity, Quality, and manner of the use, ought to be weighed. Howbeit a more *liberal* diet may be used, the strength of the

Patient

Patient being diminiſhed by Evacuation. A *thin* when it is weak by ſuffocation, that plenitude may be diminiſhed, and nature the better betake her ſelf to the Concoction of Humors. A *very nouriſhing* one, to preſerve the ſtrength. *Medicamental*, to drive away the Diſeaſe and its cauſe. At any time, when the ſtrength is decayed, by Evacuation and faſting. In the declination or intermiſſion, the Patients ſtrength being ſuffocated by the vehemence of the Diſeaſe. 2. *Drink* which ought to be *nouriſhing*, in the Patients weakneſs. And *Medicinal* in reference to the Diſeaſe and its Cauſe. Such is, a Decoction of *Barley*, *Oxymel*, *Whey* corrected with Annis-ſeed, Fennel-ſeed and Cumin-ſeed. Cooling Juleps. In the firſt daies of continual Feavers *little*, afterwards more *plentifully*. In *Agues*, when the fit is near, *none at al*: leaſt the ſeparation and excluſion of the putrifying Humor ſhould be hindred: when ſweat is ready to break forth, *hot*, to further the ſame. The *Wine* in *Agues* muſt be auſtere and hard, becauſe ſuch Wine moiſtens, further excretions, and is more eaſily diſtributed into the body: in *continual Feavers*, about the beginning of Coction, little; in *quartans*, before; in the *Progreſs* of the Diſeaſe, more. In the *Declination*, if there be weakneſs. The feaveriſh heat be not intenſe. Crudity of the matter prohibit not. Head-ach and like diſorders be abſent.

Chap. 1. *Of Continent putrid Feavers.*

Article, I. *Of the Synochus Putrida.*

Putrid Feavers ſpecially conſidered are either *Continent*, as *Synochus putrida & Cauſus*: or *Continuæ Periodicæ*, or *Intermittents*.

Synochus putrida, *is a feaver ariſing from blood putrified in the vena cava without any periodical Remiſſion and Intention, afflicting alike from the begining to the End.*

It is alſo termed *Pur*, Fire; becauſe of its very great Heat. *Aſſodes* becauſe it makes the Patient very unreſtible. *Taraxodes* becauſe it vexes the Sick with imaginary Apparitions. And *Pericaes Puretos*, the burning fever, becauſe of the Exceſs of burning Heat.

The *Pathognomonick* or *peculiar Signs* are, *extream thirſt* and burning *Heat*, howbeit the thirſt is allaied by coughing, which cauſes an Afflux of humors. To theſe ſignes are added, great *tumblings and toſſings of the Body*, by reaſon of great heat, and the acrimony of thin vapours, which in every part vex the body. The *Urin* is little in quantity, through plenty of ſweat and heat, which conſume the ſame: ſomtimes tis crude and troubled, which by the ſettling of the adventitious parts, and evaporation of the turbulent ſpirits, doth afterwartd waxe cleare; ſomtimes tis thin, very cholorick and flame-colored. The *ſtooles*, unleſs the dung be ſcorched and hardened by the feavers Heat, are liquid and ſaffron-colored, choler being ſhed into the belly and making the dung thin. The *pulſe* is quick, frequent and unequal. ſwifter in the Contraction, becauſe the Arteries by ſuddain compreſſion, indeavour to expel thoſe ſooty vapours, which greiviouſly afflict the heart. *Breathing* is labourſome, and expiration is quicker than drawing-in of the air, by reaſon of the extraordinary neceſſity of ſending forth the fiery exhalations. The *Mouth* is bitter, becauſe choler is ſoakt into the inner Coat of the ſtomach, which is common to it and the mouth. The *Tongue* is dry, and furr'd, and black, becauſe the burning heat conſumes the moiſture of the tongue, and lodges its ſooty vapours therein. *Raving*, by reaſon of the mounting of choler into the head; which if it follow trembling, tis a ſigne that the cholerick humor is transferred out of the veins into the Nerves, out of the nerves into the Brain. *Sleep* is ſomtimes profound, eſpecially when the fever is not exquiſite, but baſtard; becauſe thick vapours carried into the Brain, do ſtop the paſſages thereof.

The CAUSE is *Blood* putrifying, through a peculiar propriety of the liver, occaſioned by meates of an over heating faculty: or from crude, cooling meats, apt to be corrupted &c. Which blood is either *Cholerick*, and then the ſymptomes ſpecified in the definition are more vehement, and the feaver is termed *Cauſus exquiſitus*, an exquiſit burning feaver: or *Flegmatick*, & then the ſymptoms are milder & the fever is termed *nothus* a baſtard burning feaver.

The CURE requires that we regard the Feaver, Its cauſe and the patients ſtrength. The feaver is terminated by ſundry excreſſions, eſpecially when the patient happens to *ſhake* upon a critical day, the ſignes of Coction appearing: and that not by reaſon of the ſhaking, but becauſe of the Excretion, whoſe forerunner is the ſhaking fit. Tis *performed*, 1. By blood-letting, that the burning heat of the Blood may be repreſſed, the plenty thereof diminiſhed, and its faltineſs corrected. It muſt be *done* at the *beginning*, while the patient

ent is yet pretty ſtrong, and becauſe the violent motion of the Diſeaſe, ſhews we muſt take time while we may. It muſt *not be done at al*, if the Feaver have its Riſe from Evacuation, faſting, journeying in heat of Summer, drying of the Veins, and conſumption of the Blood-water. Alſo when Age, Sex or ſome other thing prohibits. Then Scarrifications, Cupping-glaſſes &c. muſt ſupply its place. 2. By *Purgation*, with cooling choler purges, or temperate ones, as pulp of *Caſſia*, ſyrupe of damask Roſes. 3. By *Vomiting* if there be Stomach-ſickneſs and the ſtomach be vexed with Cholerick Humors, which is known by the Mouths Bitterneſs. 4. By *Alteration* and preparation with cooling Medicaments, where note, that there is then need of *External* Medicaments, when the feaveriſh burning is abated with internal coolers, and the putrefying Humor is for the moſt part drawn forth. 5. By *Corroboration* of the Patients ſtrength, with Electuaries, Lozenges, &c. 6. By *Mitigation of Symptomes*: of which ſee in the proper Chapter. 7. By Diet, of which ſee what was ſaid before.

Chap. 2. *Of a continual Periodick Feaver in general.*

A Continual Feaver keeping its Periods or Courſes, is *Generally*, or *Specially* conſidered.

Generally conſidered, it is a Feaver ariſing from Excrementitious Humors, putrefying in thoſe Veins, which are of a middle ſize, betwixt the greateſt and the ſmalleſt, Capillary or Thrid Veins; abating at certain Periods of time, without any Total Intermiſſion.

Its *Signs* are, that it *remits* of its Violence, and then grows again Exorbitant, at certain Periods of time, but *never intermits* ſo as to leave the Patient free from Feaveriſh diſtemper more or leſs. Its Exacerbations, or Exorbitancies, are not uſher'd in by any cold, ſhivering or ſhaking, nor does any ſweat follow its Remiſſions or Abatements. It is *exaſperated* at certain ſet Periods of time, both by the arrival of Morbifick matter to the Heart, by uneven quantities (becauſe of diſtance of place) if it do not exactly keep its times: and alſo by communication of new matter from the Members ſubſervient to the ſecond Digeſtion, if it hold punctually its times.

The *Cauſes* are *Excrementitious Humors* which are bred in the Spleen and Liver, either by their fault, or the fault of the *Chylus*; yet they may be bred in the Meſeraick Veins, and brought to the Liver. They are not only *jumbled together* with the blood, but alſo perfectly mixed therewith. Their *place* is the Veins, not the *greater*, for ſo it ſhould be a Continent Feaver; nor the *leſſer*, for then it ſhould be an Intermittent Feaver, or Ague: but of a *middle ſize* betwixt the great Veins, and the Capillary, which are ſmal as the Hairs of ones Head.

See the Method of Cure in the Sorts.

Article, I. *Of a Primary Continual Feaver.*

Point 1. *Of a Continual Tertian Feaver*

A continual Feaver ſpecially conſidered, is either *Primary*, or *Symptomatical*. The Primary is that which has no other Diſeaſe preceding as the occaſion thereof; and it is either *Tertian*, *Quotidian*, or *Quartan*.

A Continual Tertian, is a Feaver ſpringing from Cholorick Blood, putrefying in the Branches of Vena Cava, *which holds continually, but afflicts the Patient moſt, every third day.*

Its *Signs* are, the Symptomes of continual and burning Feavers, its being *exaſperated* every *third day*, by reaſon of the Nature of Choler, which is ſo moved. The Cauſe of its *Abatement*, is; both the diſtance of the place, where the offenſive Vapors are bred; and likewiſe their ſmal quantity, by which means they are all diſſipated, before any more can be bred to ſucceed in their place.

Its *Cauſe*, is Cholerick Blood, and whatſoever is apt to encreaſe Cholerick bad Humors in the Veins, and to make them putrefie, when ſo encreaſed. The *Cure* is *performed*, 1 By *Blood-letting*, (a Clyſter being premiſed) becauſe the Humor is mingled with Blood. 2 By *Alteration*, Lenitives being firſt uſed; in which caſe, a little Vinegar muſt alwaies be added to Syrup of Roſes ſolutive, that it may pierce more eaſily into the Veins, and not be turned by the Stomachs heat into Vapors, which will cauſe thirſt. *Give them* faſting, that Concoction may not be diſturbed. With *Moderation*, leſt they cauſe Crudities. *Spirit of Nitre*, of *Salt*, &c. are commended. *Topicks* muſt be applied unto the Heart, which is chiefly affected, but not before the ſtate. Not *cold*, leſt the Heat driven inward, and gathering Head, ſhould burn more fiercely. 3. By *Eva-*

Evacuation downwards, and that in *the beginning*, if the matter provoke, if it be plentiful, and the Patient strong. It must be performed by *gentle* Medicines, and let Rhubarb and Myrobalans, be given in their Infusions with cooling Waters, rather than in substance. *After Concoction*, if Nature be lazy. 4. By *Sweating* and *provoking Urin*. 5. By *Dyet* which must be contrary to the Disease, and its Cause. Such as are upon the mending hand, if the Feaver be terminated with a *perfect* Critical Evacuation, let them never eat to satiety. Often, and a little. Let them abstain from al Evacuations, save by stool. Let them use the *Electuary Diarrhodon Abbatis*, to strengthen their Bellies. If by an *Imperfect*, so that some reliques remain, let them purge the said Reliques, especially by Urine. Let them keep a thin Dyet.

The *Differences* are taken from the *Causes*.

One sort is *Cholerick*, from Cholerick blood, pure and exquisite, which the Liver being peculiarly affected, produces. This sort afflicts with sharper Heat, Thirst and Watchings. They are subject to it, who abound with choler. The pulse is vehement, swift, hard. The Urine flame-colord and thin. 'Tis *finished* in the compass of *seven*, or of *fourteen* Exasperations. It is not *deadly*, unless either some remarkable Error be committed, or some malignity attend the same.

Another is *Flegmatick*, or *Melancholick*, when Flegmatick or Melancholick blood is mixed with Cholerick: where together with coolers, things gently warming and cutting are to be mixed. 'Tis termed *Notha*, or a bastard Continual Tertian.

Point. 2. *Of a Continual quotidian, or every day Feaver.*

A continual quotidian, is a Feaver raised by the Phlegmatick Humor putrifying in the Branches of Vena Cava, *which is exasperated every day.*

Its SIGN is a daily Exasperation, which happens towards the Evening, because of the natural motion of flegm about that time; with heat, which is at first feeling mild, but afterwards more vehement, by reason of the slow and uneven kindling thereof, caused by the variety of the parts of Flegm. With a light coldness of the extream parts of the Body, which nevertheless, is not found in al these Feavers.

The CAUSE is, the Humor of Flegm putrifying, which is proper to old Men because of their coldness, to Children through their greedy eating. It Causes so pertinacious and stubborne a Feaver, that it lasts, somtimes, three score daies, its beginning reaching to the twentieth day; it vehemently weakens the Stomach; whence arises a *Cachexy* and *Dropsie*.

The CURE ought to be thus mannaged. 1. The first passages must be evacuated with Clysters, or Lenitive Medicaments, in which case *Honey of Roses* is effectual; or the Stomach must be purged with Vomit. 2. Let a *Vein* be opened, if Nature be oppressed with overgreat plenty of Humors, and the Urins be thicker and redder than ordinary. 3. *Purge by stool* when signes of coction appear, premising attenuators that heat not much; first with a gentle, then with a stronger Medicament. *Agarick* trochisked, *Hiera picra*, Pils of *Fumitory* are good in this case. 4. Procure *Sweatings*, after the matter is lessened, with Salt of Wormwood, and of *Carduus Benedictus*, and a little Treacle. 5. Let *strengtheners* be given, *viz.* Trochisks of *Rhubarb*, of *Wormwood*, and of *Agrimony*, &c. 6. Let the *Diet* be sparing for three daies, if there be Crudities in the Stomach, and in the first waies. At first give Hydromel or smal Metheglin to drink instead of wine or beer, and let no fish be Eaten, in the whole course of the Disease.

This Feaver is divided three manner of waies.

I. One sort is *Simple* and *Exquisite*, which arises only from flegm, and has fits eighteen hours long. Another is *bastard*, when flegm is joyned with other Humors.

II. Another is termed *Epiala*, in which in the smallest particles of the body (understand to the sense) both heat and cold are felt at one and the same time. It *arises*, either from flegm mingled with Choler; or from Glassie flegm which in that part that is putrified, is hot, in that which is not putrified, is cold. Tis *Cured* in the same manner that other putrid Feavers are, but we must observe. 1. That Bloodletting is hurtful. 2. That spirit of Nitre in Juniper water, is excellent to cut flegm. 3. That vomiting must not be neglected, which may be procured by six ounces of *Juniper water* distilled *per Descensum*. 4. Care must be had of the Stomach, which nine drops of Oyl of *Vitriol*, with three spoonfuls of the best Canary wil strengthen, and cut the flegm; or two ounces of *Aquæ Vitæ*, stilled out of Juni-

per

per berries by way of Descent.

III. Another is called *Syncopalis*, by reason of the swoning fits; which is either *Minuta* so called, springing from a thin Humor, little in quantity, but venemous and corrupt: or *Humorous*, proceeding from plenty of Flegmatick and crude humors, with weakness of the stomachs Mouth, & frequent faintings away. The best way to proceed in the Cure is. 1. By *Rubbings*, in such whose skin is more than ordinarily hard. 2. By *loosing* the belly, with Manna and Cream of Tartar. 3. By *Digestion* and Evacuation of Humors, giving such things as are necessary for the Syncope. 4. By a *thin Diet*, in which wine may likewise have place.

Point, 3. *Of a continual Quartan Feaver.*

A continual Quartan Feaver, is a Feaver arising from Melancholy blood putrifying in the branches of Vena Cava, *whose heat alwaies endures, but is Exasperated and Augmented every fourth day.*

Its SIGNS are, obtuse *Heat*, but sharp and pricking, by reason of the Density and dryness of the putrified Humor which causes the Feaver. The *Pulse* at first smal, slow; and buryed as it were under the skin; afterwards great, ful, and swifter than in an Ague. Somtimes the Patient *Spawles* much, which argues either the overgreat moisture of the Stomach, or the Spleens fault, in not separating the Melancholy Humor.

Its CAUSE is, Melancholy blood, putrefying in the middle sort of Veins, and springing from its proper causes.

The CURE is altogether *hard*, both because it lasts to the fortieth day and further, unless peradventure it be a Summer Quartan: and likewise because, seeing that Humor is hard to putrifie, it argues there is a great cause. 'Tis *Performed*. 1. By *opening* the inner Vein of the left Arme. 2. Cy *Preparation* of the Humor, which must tend much to moistening. 3. by *Purgation* with Melanagogues frequently repeated, as also the use of sweaters, and piss-drivers. 4. by *strengthening* the Patient, with borrage, buglos, Citron juyce &c. 5. by *Diet*, which ought to be cutting, moistening and cooling &c.

Article, 2. *Of a continual Symptomatick Feaver.*

Symptomatick Feavers, are such as follow upon other Diseases, which being removed the said Feavers Cease.

Their *Signs*, *Causes*, and *Cures* are to be drawn from those Disease which they wait upon.

Their *Differences* are sundry.

I. One sort is *That which follows the Inflamation of some inward part especially, and which is neare the heart, or has a consent and sympathy therewith*, the Vapors which arise out of the blood shed into the part inflamed, and putrifying there, being communicated to the heart, and heating the same. It is *as many-fold*, as the Inflamation is. The *Cure* respects the Inflamation.

II. Another sort there is, termed *Lipyrias*, in which during the whole course of the Disease, the inner parts are as it were burning up with Heat, and the outer parts meane while cold. 'It *arises* from a vehement inflamation or Erysipelas of some internal part, especially the Stomach, the blood and spirits having recourse to the part inflamed. Either the *Cure* is not to be undertaken; or if it be uudertaken, resistance must be made inwardly against the putrefaction and extream heat; *external*, after the parts have been rubbed, heaters, and openers of the pores must be applied. In which case Oyl of Dill, and Oyl of Orice Root, with oyl of Vitriol, and strong spirit of Juniper berries are good.

III. Another is slow, which is *hereby knowen*, in that it afflicts with a gentle heat, with which appear the notes of putrefaction, in in the Urine and Pulse. It is not burthensome to the Patient by any grevious symtome. The Patient can hardly stir on his Legs for weakness. The bodie pines away by little and little. 'Tis protracted beyond the fortieth day. 'Tis exasperated by the use of Purgers. It keeps no order. It *arises* from putrefaction of matter shed forth of the Vessels into the substance of some bowel, or at least fast fixed in the Capillary Veins, which are dispersed through the substance of the bowels, and by its putrefaction corrupting the said substance. From whence Vapors cannot be carried towards the heart, in such great plenty, as in other Feavers. 'Tis *Cured* by aperitives,

attenuaters and detergents, appropriate to each part. We must also use *gentle Purging*, &c.

IV. Another sort there is *Which arises from the Putrefaction and Corruption of some Bowel.* From whence putrid Vapors are communicated by the Veins inserted into the heart, and heat the same. It is somtimes *more gentle*, otherwhiles *more Vehement.* It happens for the most part, in *Putrefaction of the Lungs*, in Fistula's that peirce deep into the *Cal*, *Nesentery*, Womb &c. The *Cure* is to be directed to the Ulcers and Fistula's of the internal parts.

V. Another, springs either from *Corrupt Milk*, as often betides Infants; or from *Blood* somwhere *Putrifying* without the Vessels; or from worms; or from *Crudity*, familiar to infants because of their greedy feeding, with swelling and inflamation of the Hypochondria; putrid Vapors being communicated to the heart. In the Cure, respect is to be had to the Causes and parts affected.

Chap. 3. *Of an intermitting Feaver or Ague in general.*

AN intermittent Feaver [commonly called an Ague] is a Feaver arising from Vapors which proceed from Humors bred in the Mesaraick Veins, Putrifying, and ever and anon entring the Vena Cava, *invading the sick person at certain set times, and ending with excretions, or Evacuations.*

It's SIGNS are, to *come* at certain set times, with shaking, shivering, or cold, the sensitive parts being vexed and nipped as it were with a sharp Vapor. To *end* by sweating. Urine, or passage of the Vapors through the pores of the skin; by scabbyness, if the thicker part of the Humor be thrust forth into the skin. Now, necessary it is, that it should *come at* certain seasons, and then remit, and come again. For there remains a defilement in that part which is the seat of the putrefaction, with a weakness also in the said part. Wherupon the affluent Humor though it be good, is defiled by the impurity of the part, as it were with Leven, and through the weakness of the parts it is corrupted. Now this *return* of the Feaver or Ague is caused. 1. Partly by the *diversity* of Humors, seeing it alwaies agrees to them, nor ever varies, into whatsoever body it happen: partly, because of a peculiar *Quality* they have, which ought either to be ascribed to celestial Causes; or it arises from a peculiar corruption. 2 It comes either *just at one* and the *same time*, or by reason of some external causes, which move the Humors it anticipates; or the Humors being diminished, it comes later. Also the fits are either *short*, if the matter be little, or thin, the bodies constitution not close compact, the Patients strength Vigorous; or *long* if the premises be contrarily disposed.

The next *Cause* is a *putrid Vapor*, arising from an Humor and assailing the Heart. Touching the humor three things are to be observed. 1. That it is a *Putrid* Humor, which appears by the Urine, which has in it signs of putrefaction. Nevertheless it does not *All* putrifie at once in the first Paroxysme, but only a *Part*, which is disposed to putrifaction: the rest in the following fits, til al be consumed. 2. That the *Hearth* and *Tinder* as it were and *place* of the said Humor, as wel out of the fit as in it, is the *Mesarick Veins.* Which appeares both by the stomach sickness, Vomiting, stretching and pain of the Hypochondria &c. With which the Patient is troubled; and *also* by the frequent Vomitings of Choler in very great quantity at the beginning of these feavers, which could not be evacuated in such a manner from the remote Veins; *likewise* because the approach of the fit is collected by the compression of the pulses at the beginning of the fit, which the Greeks terme *Episemasia*; and the matter is purged out by Urine, 3. That the said Humor is ever and anon transferred into the *Vena Cava* and the *Artery.* The truth is, Crudity and Coction are observed in Agues or intermitting feavers, as wel as in the continual. At first, the Humors are moved from the Circumference unto the Center. And seeing, the branches of *Vena Porta*, are inserted into the substance of the Liver, and their mouths communion with the *Vena Cava*, and the Arteries proceeding from the heart, are in the Stomach, Guts, Spleen, and elsewhere joyned to the mesaraick Vessels; the waies by which these Humors may be carryed thither, are evident enough.

The CURE of intermitting feavers or Agues is *Performed.* 1. By *Removing* the *Debility* consisting in the part, by altering Medicines. 2. By *Withdrawing* the Putrid *Defilement* with *Purges*, *Blood-letting*; if blood abound in *Vena Cava*, and be corrupted by Vitious Humors. By *Sudorificks*, which are of greatest force in this Cure Precipitating Medicaments are commended at first, as *Crollius* his

his pouder of ſnails ſhels, pouder *of mother of pearle* calcined four ſcruples, and the Magiſtery of Crabs eyes. Externally are applied, *Cobwebs* and *Populeon* Ointment, the *fiſh* we cal a *Tench* bound to the ſoles of the feet &c.

Article. I. *Of a tertian Intermitting feaver, or tertian Ague.*

An Intermittent feaver ſpecially conſidered, is either a *Tertian*, or a *Quotidian* or a *Quartan*. Howbeit there are *Quintans*, *Septans*, *Octans*, *Nonans*. But thoſe modes of Ague are ſeldom ſeen, and are but certain ſortes of the ſimpler Modes aforeſaid, only a fit Two or three happen to be omitted. So a *Quintan* is a ſort of tertian, in which the third day, is without acceſſion.

An Intermiting tertian Feaver, or tertian Ague, is a feaver ſpringing from excrementitious cholor putrifiing in the meſaraick veins; afflicting every third day, with a cold ſhaking fit, which is followed with a hot fit and other ſymptoms.

Its SIGNES are Paroxyſme or fit which ſeazes the patient every other day with a ſhaking cold. The ſhaking cold being over, much *Heat* ariſes, the pulſe is at the firſt begining of the fit, ſmal, ſlow, afterward frequent. The *Urin* reddiſh &c.

The CAUSE, is a Cholerick filth in the meſaraick veins, either alone, or mixed with other humors, and putrifiing Springing from meats apt to be corrupted, or others fit to generate the ſame, and ſending putrid vapours to the Heart.

The CURE is performed. 1. By *Evacuation* of the firſt waies with lenitive medicaments or clyſters. 2. By *Vomit* if the matter tend to the ſtomach, and the patient be troubled, with Heart burning, ſtomach ſickneſs and deſire to vomit: but ſo as the humors be not thereby drawn out of the veins to the firſt paſſages. Salt of *vitriol*, *Aſarum*, *Broome water of piſmiers* or *Aunts*, are commended, if warily adminiſtred. 3. By *Blood-letting*, if the Humor have penetrated out of the firſt region of the body into *Vena cava*, which is known by the redneſs of the Urines; and it ought to be performed upon the day of the Agues Intermiſſion. 4. By *preperation* with *cooling* medicaments, *moiſtening*, and ſuch as *cleanſe* the firſt paſſages. *Taraxacum*, or dandelion, *ſorrel*, *Barly*, *Cichory*, Spirit *of vitreol*, Cream of tarter, *Tartarum vitriolatum*, ſyrup of *juyce* of *Citrons*, are good: alſo theſe *ſpecificks Centory*, *Devils-bit* &c. 5. By *purgation* downwards, and that for the moſt part on the wel day; yet on the fit day, if the matter of it ſelfe encline to go away by ſtoole. *Rubarb* is good, and ſyrup of Cichory with Rubarbe. 6. By *ſweat*, procured by ſudoriſicks, ſalt of *wormwood*, of *Centori* of *Cardus*, *Harts-horn* prepared, Mageſtiry of *Mother* of *Pearle*, which are to be given either before the fit, or in the end thereof. 7. By *ſtrengthening* the Liver and ſtomach. Salt of *wormwood* diſſolved in ſpirit of Niter, and againe coagulated into Chriſtals, is good, being taken to the quantity of a ſcruple. 8. By *application* of *topicks*, ſuch are the *Cataplaſme* of Mynſichtus P. 368. The pouder of a dryed manchet beaten with greene ſage; the white of an egge and a little vinegar being added, and ſo bound to the wriſt. The Herb *Potentilla* wild tanſie or wild Ægrimony, beaten with ſalt and vinegar, and ſo applied, to the pulſes and the ſoles of the feet, in the fit. A *Cataplaſme* or pultiſe, of Bryony Rootes, Black Hellebor, bay ſalt, white pepper, ſaffron and figs. 'Tis divided into *Exquiſit*, *Baſtard*, an *Pernicious*.

I. The *Exquiſit* Intermitting Tertian, is hereby known. 1. In that the *ſhaking coldneſs* at the firſt comming is *vehement* and pricking, ariſing from an humor and Vapour very thin and ſmal in quantity ſhipping out of the veins. 'Tis *ſmal*, if the matter be plentiful; and not eaſily moved: more *vehement*, by how much the matter is thinner and ſharper, the expulſive faculty ſtronger, and the ſence of the parts more exquiſite. 2. In that the *Heat* is much ſharp and biting, and ſpreads it ſelfe al over the body in the Hight of the Hot fit. And if you hold your hand long upon the patient, it grows gentler by reaſon of the eaſy diſcuſſion, at what time the body is al over bedewed with a gentle moiſture. 3. In that the *pulſe* at the Beginning of the fit, is ſmal and ſlow, the matter being not yet conquered by the oppreſſed heat, yet is it not drawn back; in the Progreſs of the fit, 'tis vehement, ſwift, frequent, a little hard ſtraitned by reaſon of the ſtore of matter newly inflamed like green wood, more ſwift in the Intermiſſion of the dilatation, by reaſon of the heat of the ſmal quantity of humor, remaining in the Chimney of putrefaction, communicated to the reſt of the humors, and carried to the heart. 4. In that, the *fits* laſt not above twelve howers. 5. In that the Urine is reddiſh and yellowiſh, of a midling Conſiſtence, ſhewing a white cloud or a ſwim, in the firſt fit:

and then the Ague lasts not beyond the fourth fit. It ariſes from choler, ſometimes reſembling that which in the Gal-blader, regurgitating into the firſt paſſages, ſomtimes verdigreiſe colored or green, bred in the ſtomach and veins. The *cure is now of the hardeſt*, for 'tis terminated for the moſt part within the compaſs of ſeven fits. It is *ended* either, by *ſweat*, if the humor be caſt bak into the veins which are in the ſurface of the Body; or by *vomit* and *ſtoole*, if to the ſtomak and entrals: or by *name* of theſe, if a great part conſiſt in the miſaraick veins; and then the patient feels a preſſure, pains and Inflamations about the midrif. *Blood-letting* muſt be adminiſtred, before the third fit, leaſt it fal in with the ſtate of the diſſeaſe.

The *Baſtard tertian*, is hereby knowne, in that the Heat is milder, nor is it diffuſed through the whole Body. In that it is terminated neither by vomit nor ſweat, but by egreſſe of vapours in the Declination. In that the *Pulſe* is at firſt hard, the hardneſs encreaſing til the ſeventh day, growing afterwards more ſoft, as the Urines become better digeſted. In that, the fit laſtes, many times, eighteen houers, and the Ague reaches to the fourteenth and ſomtimes to the twentyth day. It *ariſeth* from *cholor* mixed with melancholy or flegme; nor is it generated only in ſummer, but in the Spring, Autumne, and Winter. In the *Cure*, a vein muſt be opened after the third fit, when a good quantity of the morbifick matter, is mingled with the blood in *Vena Cava*. In the *Praparation*, we muſt have an eye to the Diverſity of Humors.

III. The *Pernicious* Tertian; which happens from ſeven cauſes. 1. If an *Error* be committed by the Patient or Phyſition. 2. If that *Humor* which ought to be ſent out of the veſſels, by reaſon of their cloſure, do come to ſettle in ſome principal member. 3. If it be too *Thin* and putrid. For thence come frequent ſwownings, and over great ſweats without any eaſe to the patient. 4. If it have ſome *peculiar pravity*, either through *aduſtion*, or badneſs of diet. For the humors being inflamed, *roughnes* of the tongue, and unquenchable thirſt are thereby cauſed. Holowneſs of the *eyes* by reaſon of the waſtings of ſpirits. *Fiery* Urin with cholerick ſtools. An ulcerous pain of the whole *Body*. Paucity of *ſweat*, by reaſon of the thickneſs of the matter. 5. If a *thick humor* melted by heat, ſettle in ſome part. Hence follows, by reaſon of the difficulty and faculty of 'tis inflamation, an inequality of being heated. The melting and plenty of a thick humor and which ſemed to be little in the greater veſſells, but by rarefaction cauſed by Heat, it becomes in the ſmal veſſels more in quantity. Hence it is that the hot fit is interupted by a cold, and the cold fit by an hot. The Urin becomes watery, of much and thick ſediment. The pulſe is ſometimes intercepted. In the declination, ſweat iſſues from the navil to the head. Neither Augment, nor ſtate, nor decqinotion are equal. 6. If it a contagious or peſtillent malignity. 7. If the Heat either draw the womb in conceit, and move the humors contained therein, or cauſe a dangerous Catarh, Tiſſick, or Gout.

Article. II. *Of a Quotidian Intermittent.*

A Quotidian Intermittent, is a feaver ariſing from flegme putrifying in the miſaraick veins, and afliting the patient with every day a freſh fit.

'Its SIGNS are. The foregoing of ſuch cauſes as breed flegm. 'Its dayly *Aſſaults*, which are for the moſt part in the night time, whence it is more dangerous, by reaſon of the unſeaſonabelneſs of giving Phyſick at that time; and they come with a ſhaking and Cold fit. Which Heat ſlow, vapours, nor very burning when it has diſperſed it ſelfe through the Body. The *Urin* at firſt white, thin, and crude; when the matter is digeſted, thick, troubled and often red. The *Pulſe* is exceeding ſmal, ſeldom and ſlow. The *fit* laſts eighteen hours and ſomtimes twynty four. *Vomiting* and *Sweating* if they happen at firſt, they proceed from ſtrength of nature and thinneſs of the humor.

The CAUSE is, *Flegm* putrifiing in the Maſaraich veins, which is colected by means of the heat of the bowels diminiſhed, cold and moiſt kind of diet. ſuperfluous feeding upon ſuch matter. It *putrifies* through the cauſes afforſaid.

The CURE is firequently *hazardous*, both becauſe it laſts forty daies, yea three months and longer: and alſo becauſe hnrting the ſtomach and liver very much, it throwes the patient into a Cachexy. 'Tis *performed* 1. By *preparationof the petcant matter*, by convenient medicens, moderaly hot, which a clyſter and gentle vomit may proceid. 2. By *evacuation* of the the *ſaid matter* being concocted, by *vomit*, where extract of *Eſula* and water of *radiſhes* and green walnuts, diſtilled with

with vinegar, are good. By *purgation* of flegm and ſweat. 3. By ſtrengthening the *ſtomach* and *Liver*. 4. By *Diet*.

It is differenced according to the cauſes.

I. One ſort comes from *thick flegme*. Then the *urin* is white and thin, but by little and little it begins afterwards to grow reeddiſh, and the ſettleing becomes thicker and the patients mouth is continually ſul of watteriſhneſs. It requiers ſtrong *medicines* to digeſt it, and thoſe frequently repeated; to which, preparations of tartar, ought alwaies to be added. Vomiting is profitably procured with *mercurial* pils. 'Tis good to purge with an infuſion of the ſpecies *diacarthami*, ſenna and ginger in Centory water, ſome drops of ſpirit of vitriol being added. Once in a week one dram of Venice Treakle may be given.

II. Another is from *thin acid flegm*, and then there is paine in the forhead and left Hypocondrium, coſtivneſs, and acid belchings. It muſt be *ſcilfully* cured, leaſt it turne to a quartan. The liver veine of the left ſide may be oppened. Before the fit, ſome ſpecifick medicament muſt be given.

III. Another is from ſalt thin flegm. Then ſaltneſs and drineſs are felt upon the tongue. The Urin is red and thick, with ſenſe of heat and ſharpneſs in the making. The Liver vein on the right ſide arme may be opened.

Artickle. III. *Of an intermitting Feaver or Quartan Ague.*

An Intermitting Quartan, is a feaver ariſing from melancholy blood in the miſaraick veins, which takes the patient every fourth day.

'Its SIGNES are; Reachings and yaunings, with a ſhaking fit after, which at firſt is ſmal, but afterwards like thoſe that in the extremity of winter are pained with the cold; for it does not ſo much prick as beat and bruiſe as it were. The *Heat* is kindled by degrees, becauſe of the thickneſs of the matter. The *Paronyſmes* returne every fourth day. The *Pulſe* is rare and ſlow, but in the vigor of the Fit, ſwift and frequent. The *Urines* are at firſt thin and watery, afterwards more colored and thick. The *Sweats* are at firſt very ſmal, afterwards exceeding plentiful.

The CAUSE is a Melancholly humor, collected and putrefiing in the Meſaraick veins, about the ſpleen and neighboring Bowels, ariſing from Cauſes like it ſelfe, among which *Vinegar* is one.

The CURE is wholly difficult. For 'tis a long laſting ague, and ſomtimes reaches out for certain years; eſpecially if it begim in the Fal of the leafe. But, 'tis *more difficult*, when it ſprings from black cholor: if it happen to old people, whoſe weake heat, cannot overcom the Matter. If it be a double ague. If it be joyned with ſome greivious Affection of ſome of the bowels. *Eaſyer* if it be a legitimate Quartan, and unattended by any diſeaſe of any of the Bowels. otherwiſe ſuch as are taken with a quartan Ague, are little troubled with Convulſions; or if they are, the matter turning towards the Hypocondria, and remaining no longer mixed with the blood in the veins, they are freed of cheir Quartan Ague. 'Tis performed, in *general* firſt by *gentle* then *ſtronger* medicines. In *perticular*. I. By *opening* the Baſilica or Mediana *Veins*, at the very firſt the firſt paſſages being cleared, if plenitude of blood requier ſo much; not ſo ſoone if there be no plenitude. Blood plentifuly, if the blood come thick and black; ſtop it quickly, if it rune thin. II. By *preparation* and *Coction* of the pecant matter, reapeated with moiſteners, and ſplenicks; ſuch as *fumitory*, Maidenhair, Ceterach, Roots of *Eringos*, Decoction of *Turneps*, ſyrup of fragrant apples &c. III. By *evacuation* thereof, either by *vomiting*, after which a dram of venice Treacle may be given, before the following fit, mixed in a cup of wine: or by *ſtool*, to which end are good in the firſt place the *Pilulæ Tartareæ* of Quercetanus or Senertus: afterwards extract of black Hellebore; at laſt the pil of *Saga penum* of *Camilus de Camilis* in *Quercetans Pharmachopœia*: or by the *Hæmorrhoides*, leeches being applied: Or by *Sweats*, which may be wel procured by *Treackle*, *Antimony diaphoretick*, or ſix or ten grains of ſal Armoniac purified in Cichory water, before the fit. The patient being ſtrong and Coction appearing, a purge is happelly given a little before the fit. IV. By *ſtrengthening* the *bowels*, eſpecially the *ſpleen*, by their appropriate remedies, ſuch as wil not augment the feaver, both external & internal V. By *Mitigation* of *ſymptoms* of the ſhaking cold by treacle, or Aqua vitæ given four hours before the fit. Of the *Backpaide*, by a application of *Hartman* his faccolus in his *Chapter* of the quartan Ague. VI. By *Diet*, where obſerve, that we muſt order abſence from al kind of food, on the fit day, wine that is ripe and thin may be alowed. *Apropriate* medicaments in this ſeaver are, *Amoniacum*

ſeven

ſeven times ſublimated. Powder of *Vipers* given the Quantity of one ſcruple or half a dram, before the fit in ſome convenient Liquor. An *Hares Heart* prepared like Fox-Lungs. Oyl of Myrrh, from four to eight drops, before the fit.

The Quartan Feaver or Ague is diſtinguiſhed *two manner of waies.*

I. One ſort, ſprings from *natural Malancholly*, in which we muſt go to work with moiſteners and moderate heaters.

Another, ariſes from *aduſt Humors*, which *is known* from decay of Appetite, vehement thirſt, Head-ach and redneſs of Urine. It *ariſes* from ſuch things as burn the Humors. In the *Cure*, we uſe things moderately cooling, to which in the progreſs of the Diſeaſe, Cutters and attenuaters ought to ſucceed. A Bath of *ſweet fair water* is commended, or rather to waſh the Feet therein.

II. One comes *of it ſelf, without another Diſeaſe foregoing.* And then a Diet ſomwhat thin is good at firſt; afterwards ſomwhat groſſer; and then agin towards the ſtate, ſomwhat thin.

Another *follows other Diſeaſes.* Then a thicker kind of Diet muſt firſt be uſed. Afterwards the ſtate, it muſt be ſomwhat diminiſhed. In the fit nothing muſt be taken.

III. One ſort is *gentle*; of which in the premiſes.

Another is *dangerous*, which is known hereby, that on the fourth day the fit retures, with extream weakneſs, the Urine being exceeding red and troubled. It *ariſes* from burning Diſeaſes, black choler being bred by the aduſtion and turning to aſhes of the Melancholy Humor, or yellow choler. Tis cured with extream difficulty.

Article, VI. *Of compounded Feavers, Particularly the Semitertian.*

Feavers compound are, when one Feaver is joyned with another.

This *Conjunction* is various. For *ſomtime* a nonputrid is joyned with a Putrid: ſomtimes a *putrid* with a Putrid; and that, either with a continual or an intermittent; with an intermittent; or contrary wiſe.

The SIGNS are the ſame with the Signs of ſimple Feavers, eſpecially the return of cold, ſhivering and ſhaking after ſome reſpite. After many ſhaking fits, one hot fit; or after a cold fit, no ſweat. The *Contaction* of the pulſe is moſt frequent, by which we gather a new motion of the matter and a new fit to follow. The *Cure* is *Hard*, becauſe they vex more than ſimple ones, and there is hardly time to uſe help. It is *apparent* from the cure of the ſimple Feavers. They are variouſly divided.

I. Some are *confuſed*, when two Feavers begin and end at one time, ſo as hardly to be diſtinguiſhed; becauſe divers Humors mingled together putrifie in the ſame place. Others *Implicit*, when the nature of each may be diſtinctly known.

II. Some are *Subintrantes*, interfering; when the fit of the ſecond begins, ere the fit of the firſt be over. Others are *Coalterna* keeping due times, ſo that one fit being done, after a ſmal ſpace another begins. Other *Communicantes*, when the fit of one begins preſently after the fit of the other.

III. Some are *Intermittent*, under which are comprehended. 1. A *Tertian*, both *double*, which comes either once a day or twice; ariſing from choler putrefying in two places of the Meſaraick Veins; and *Triple* which comes thrice in two daies; once in one day, twice the other; and ſprings from choler putrefying in three ſeveral places. 2. A *double Quotidian*, which comes twice in twenty four houres. 3. A *Quartan*; both *double*, which leaves one day free, and comes the two next daies following: and *Triple*, in which the Patients are ſick every day. Both theſe are wont commonly to proceed from an unſeaſonable uſe of hot Medicaments, eſpecially Sudorificks.

IV. *Some* are *continual*, ſuch as is the *Semitertian*, For it is a *Feaver compounded* of a continual Quotidian, *and an intermitting Tertian, vexing continually, but the third day with a ſhaking fit.* It is *known* by the ſigns of both Feavers. It *ariſes* alſo from the ſame Cauſes, but moſt frequently from the Inflamation of ſome of the Bowels. 'Tis *Cured* with difficulty. For it is not ſimple, but compound. It frequently overthrows the ſtomach. It hurts the Nervous parts, which is wont to be the ground of its long laſting, and vehemently ſtirs up what [illegible]es in the depth of the Body. Reſpect ha[illegible] the Feavers and their Cauſes, *Agarick* among Purges bears away the Bel in this Caſe. 'Tis *divided* two manner of [illegible]ies. For 1. One is *Legitimate*, when the Quantity of Choler and Flegm are equal. Another baſtard, when choler exceeds Flegm, or Flegm Choler. 2. One is *Malignant*, Contagious and Epidemical, which is known by ſigns of Malignity. Another is of its

its *own Nature intermittent*, but with the Inflamation of some Viscus or Bowel, which is caused, when part of the feaverish matter, is thrust with the blood into the Entrals, stomach, Liver and bordering places. *Thin*, a Symptomatick continual Feaver is raised. There are signs of Inflamation. The shaking fit happens, *somtimes* ordinately according to the Nature of the Intermitting Ague, *somtimes* inordinately, when the Inflamation happens to a new part, or when Quitter is made. The *Cure* depends upon the Cure of the Intermitting Feaver, and of the Inflamation of the Bowel. See *Spigelius* of the subject.

Title, IV. *Of the Hectick Feaver.*

AN Hectick, is a Feaver arising from heat, in such sort Occupying the parts of the Body, that though it be fomented by no cause, yet it continues.

Its SIGNS are these; *Heat*, which causes no pain, because the solid parts are already altered. 'Tis weak at first; because of paucity of Vapors; biting afterward, because of the solidity of the Parts. In the Arteries greater because of their correspondence with the heart. An hour or two after meals, Tis augmented, because of the Humectation of the dry and solid parts; freely, without compression, without Horror and Rigor, with a great and swift pulse; the Meat being distributed it ceases. It also dries up al the radical moisture, consumes the secondary Humors, and melts al the fat in the Body.

Its CAUSE is, either other *Feavers* either burning or long-lasting; or Diseases of the internal Bowels, as cheifly of the heart, and parts in the Chest, the Kidneies stomach and Midrif. Or *External Evident Causes*, very vehement, which consume much of the substance in the solid Members, raise up very great and long heat, yet introduce it not into the solid parts before they Have introduced it into the spirits in the first place.

The CURE is perfected. 1. By *Humectation* and *Refrigeration*; *Internal* by flowers of *Violets*, *Borrage*, *Bugloss*, four coold seeds, Milk of Perles, of Corals, and other gentle things, least the weak heat of the Patient be overwhelmed: *External*, as *Baths* of fresh water, of Milk, of Oyl Olive. *Noin-tings* of the *Back-bone*, as with Oyl of sweet Almonds and of Violets. 2. *With convenient Diet*; Here Womans breast Milk, Asses Milk, are of use, unless there be a Putrid Feaver. *Meats* of Almonds, Pine-kernels, Pistachios &c. *Broaths of* Snailes, waters of Capons, Eels, River-Crabs of which see *Joel* in his fift Tome, *Aqua Mirabilis Ferdinandi*, which is made *of the blood of a young Hog newly beheaded two pints, one pound of Venice Terpentine, half a pound of scraped Lycoris, Corants five handfuls, fifty Figs, Orice Roots three ounces Pine-Apple Kernels claensed three handfuls. Tobacco Leaves two handfuls. Crums of bread half a pound distilled in a Glass Limbeck.* The dose is two ounces with Sugar. See him in his Observations History the 21.

An Hectick is divided two manner of waies.

I. One sort is *without a Consumption*, when the dewy moisture of the parts is not yet consumed. When it *begins*; tis hardly known, unless a man may gather it from the bodies leanness, its Chollerick Complexion, and straitness of the Breast. In the *Progress* an Ephemera being present, the Heat lasts beyond a day with encrease; about the third day, the heat is encreased after meat.

Another is *with a Consumption*, and is two-fold *the one cald Marasmodes, when the dewy moisture is consumed, and the fleshy substance begins to be preid upon.* Then the body grows leane, the Temples fal, the palms of the Hands and soles of the Feet, are hot; and those other accidents follow, before mentioned. The stooles have a greasie substance among them. It is also voided by Urine, not much at once as in persons of good constitution; nor with pain of the Kidneis, as in solution of the fatness of the Kidneys; but slowly, and a little at a time. Sediment like bran is seen in the Urine, without any Disease in the bladder, swelling of the Thighs, and a looseness, which threatens Death. *Another* is when *the Fibrous and Membranous substance, is violated by the Feaverish heat.* Hence follows the *Marasmos*, which happens somtimes to Young and Old Preternaturally: somtimes through defect of Aliment, and extinction of the natural heat, either in regard of Age, or of some Scirrhous Tumor. See thereof, *Joel* in the foresaid Tome.

II. One sort is *simple* to which what has been before said in general may be applied.

Another

Another is *Complicated*, and that either with a *Putrid intermittent*, and then the greateſt part of the Heat remains in fiery, and the leaſt is come into Act. The fit being finiſhed, the places of the Arteries grow hot, the other parts are temperate. The Pulſe looſes not its frequency and ſwiftneſs, and the Patients meat does not encreaſe ſtrength. Or with a *Continual Putrid*, and then tis hardly known. The dry heat remains after the end of the declination, or of the whole Feaver. The Body is more extenuated. The Urine is fatty and Oyly.

Title, V. *Of Malignant Feavers.*

Chap. 1. *Of Malignant Feavers in General.*

HItherto we have treated of Benigne or wel affected Feavers: the *Malignants* come next, which are *Generally* or *ſpecially* to be conſidered.

Malignant Feavers generally conſidered, are Feavers ariſing from ſome hidden cauſe partaking of a Venemous kind of Quality, cauſing more grevious Symptomes than ordinary, and yet not killing many, or ſuddenly,

Their SIGNS are, great *weakneß* from the begining, without any manifeſt Cauſe, more than the Feaver and Feaveriſh heat could probably produce. *Pulſe* frequent, Smal, Weak: or if the Pulſe being natural, ſeem to deceive, tis known by the preſence of other Symptomes. The *Urins* are ſome times, in the firſt daies, like thoſe of heathly perſons: ſomtimes thick, colored, troubled, having a thick red and troubled ſediment. The Heat milder than ſutes with the Nature of the Diſeaſe and Symptomes. A Maſs of Symptomes, animal, Vital and natural. Swellings or ſpots break forth &c.

The CAUSES are, either the *Diſpoſition* and *Plenty* of *Humors*, or *Contagion*.

The CURE is *Hard*, if greater and more conſtant Symptomes appear. Dropping of blood at the beginning ſignifies the working of the Humors, their bad Quality and the Patients weakneſs. Tis performed bp Bezoardicks and other things of which in the Differences.

The Differences of Malignant Feavers are taken from the Cauſes,

I. Some are from the *Bad Diſpoſitions of Humors* and *their Plenty* whether in the ſtomach, about the Midrif, or in the firſt waies. They are *known* by Stomach-ſickneſs, Pain, Heat, Bitterneſs of the Mouth, anxiety and other tokens. *They ariſe* either from corrupt meats, or from ſome other cauſe. *Are Cured.* 1. By *Blood-letting*, which ought to be Practiſed after the Evacuation of the firſt waies by Lenitive Medicaments, leaſt a greater Ebullition and working of the Humors becauſed, and that before the fourth day. 2. By giving of *Sudoriſicks*, which neither augment the Feaver, nor are very ſtrong, that either the Body may be diſpoſed to ſweat, or at leaſt the Malignity may be expelled. 3. By *alteration* and preparation, with ſuch things as ſtop the Commotion of the blood and reſiſt the malignity thereof. The Juyce of *Citrons*, *Pomegranates*, and the Root of *Scorzonera* are commended &c. Yea and alſo the ſpirit of Vitriol with other Syrups, unleſs the Patients be aged and lean: and unleſs their Lungs be otherwiſe diſeaſed than through flegm ſtopping the Veſſels. IIII. By *Purgation*, which ought to be effected by gentle Medicaments and ſcarce before the fourteenth day. V. By *giviug* cooling diureticks, if the matter of the Diſeaſe go that way. VI. By application of *Topicks* to the Pulſes and the heart al the time of the Diſeaſe. VII. By mitigation or taking away ſuch *Symptomes as ſhal happen.* VIII. By *Diet*, in which we muſt abſtain from wine, unleſs faintings happen. A Decoction of Harts-horn with ſuch a Quantity of ſpirit of Vitriol, as may cauſe a grateful acidity; to which a little Julep of Roſes or Viollets may be added; muſt be given. They are divided *two waies.*

I. Somtime *there is no Poyſon*, but the Diſeaſe is urgent, by reaſon of the Cauſes Vehemence, or ſome evil quality conjoyned. Somtimes *there is an hidden Venemous Quality.* 2. Somtimes the *Putrefaction* and Malignity are equal. Somtimes the *Putrefaction* is greater *than the Malignity.* Where the firſt waies muſt be Evacuated, not only by Clyſters, but alſo by Syrupe of Roſes ſolutive, Caſſia, Tamarinds, &c. Somtimes the Malignity is greater than the Putrefaction.

Some ariſe from *Contagion*, in which the *Cure* ought to be undertaken by Sudoriſicks and

and Antidotes, and Nature must be assisted if she expel any thing.

Chap. 1. *Of the several sorts of Malignant Feavers.*

Article, I. *Of the smal Pocks.*

MAlignant Feavers specially considered, contain under them, Feavers with *smal Pocks*, *Meazels*, and such like Eruptions, the spotted Feavers, *Sweating-sickness* of *England*, The *Hungarian* Disease, the Feaver with the *Cramp*, and the Feaver with a *Catarrh* and Cough.

The Smal poxe are pustles arising by means of the expulsive faculty on the surface of the skin, and parts that hold proportion with the skin, with a continual feaver, by reason of a peculiar boiling of the Blood.

The SIGNES of the smal poxe when present are needless, for they appear to our Eyesight. That they wil shortly come forth, is signified by paine of the head with heavines of the eyes, also of the neck and back, itching of the nostrils, Diminution of Respiration, dryness of the cough; trembling of the Feet the when patient turns, frequent sneesing panting of the heart. The *Urin* is somtimes like that of Healthy bodies, the vitious matter being driven into the outward parts of the body; somtimes it is troubled by reason of the great working of the Humors. Tears bursting out of the eyes without any cause of sorrow. A feaver raise by the working and boiling of the humors. Spod breaking forth of the Body &c. ts

The CAUSE is either external viz. Impurity of the Mothers Blood, which the infant in the womb atracts in the last months, because there is none purer. This blood being drawn into the whole fleshy substance, is for some yeares insensibly hidden: at length no longer able to beare it, it begins to ferment like new wine or beere that works; by which frementation or working, the pure is seperated from the impure; the impurity is drawn forth by a certain kind of Crisis, and the Heat is communicated to the heart, and a feaver raised.

Or *external* or *contagious*, when out of Bodies so diseased, a sickly vapour is comunicated to another: or the *Air* which by reason of the Influence of the stars or other causes, does either rupt the humors or set them in agitation.

The *Physitians care* has two scopes. I. *Preservation*, which in persons of years is contrived by blood-letting, purgation and taking heed of the Infection; and in infants only by the last means of the three. II. *Curation*, which is *Hopeful*, if they soon break forth, and appear high above the skin, great, seperate, white or red; If the Heat abate after they are broken forth; if large bleeding at the hose have proceded; if no greivous symptoms attend them. *Doubtful*, if either they come slowly out, or go in againe; if they are of violet color, green, lead-color, hard, and touching one another; If the feaver abate not after their breaking forth; If the patient breaths not freely, faint away, and other symtoms be present. 'Tis *performed*, I. By *mittigation* of the *Ebullition* or *fermentation* of the Blood least over Ebullition produce more greivious symptoms; which is effected by blood-letting and light purgation in persons grown up: by Clysters of the decoction of barly with fresh butter, comon sugar in Infants; or by giving them syrup of Citrons and syrup of violets mixed together, or a bit of pomecitron. II. By *assisting nature in the expulsion*, where impediments are taken away by the foresaid remedies; and the malignity is likewise resisted. Expulsion is furthered by *Pulvis Foelis* in his 4, Tom, Book 9. sect. 5. of the seeds of *Nasturtium* or *water cresses*, and *brooklime* of each one dram, pouder of Unicorns horn one scruple, or of harts-horn half a dram. Red *coral pearls* prepeared of each a scrupel. Make al into a pouder. The dose one dram or an half dram. The *decoction of figs* of Mynsichtus in the 25. section of his Armamentarium. *Terra* Sigillata of Silesia. Seed of white turneps. A decoction of lentils unhusked, with fennel-seed and gum dragant, &c. III. By *defence of the parts*. To which end the eyes must be rubbed with pure gold; or nointed with plantane and eye bright water and a little camphire and saffron. If they cannot be opened, they must be fomented, either with hot milk, or a decoction of Barly. To the *Nostrils* a nodule of sanders and camphire dipt in rose water, must be applied. If shut, they must be nointed with oyle of sweet almonds. The *throat* must either be smeared with diamorum, or washed with a decoction of plantane and barly, with Honey of roses. The ripening of the poxs, must be furthered, with anointing the same, with oyl of sweet almonds. When they are ripe, they must be opened with golden or silver pins, that they may leave no warts behind them. They must be washed with a water distiled of al manner of flowers and mans fat,

or with oyntment of *Forestus*. IV. By *removing* the symptoms which appear with, or folow the same: now they are, *Epilepsy*, and *convulsion* when the membranes and nerves are beset with poxs; and the *palsy* when they are thereby obstructed. *Hard swellings* which must be dissipated by emollients, without suppuration. External *Ulcers*, *Dysentery*, where emollients are to be avoided and such things as dry and stop without acrimony, are to be used. Hearing *impared*, where evacuation being premised, either vesicatories or vapours received into the ears are useful. *Inflamation* of the Eyes, &c. Of which see in their proper places.

Article. II. *Of the measels and such like Breakings forth.*

The Morbilli or Measels, are smal red pushes breaking forth upon the skin, with a continual feaver, caused by the expulsive faculty, and a peculiar working or boiling of the Blood.

The *Signs*, *Causes*, *Differences*, *and Cure*, vary not much from those of the smal pocks: of which we newly discourſed.

Like Breakings forth to the measels are.

I. *Crystalli*, *Cristals*, pushes about the bigness of Lupines, breaking out upon the Body, and shining like Christal, out of which a watrish humor flows. The Germans cal them Schafs-blattern.

II. *Tubercula*, little risings not thick together, with little moisture in them, without any feaver and soone cured.

III. *Rubeolæ*, smal red Pimples, which come somtimes alone with heat and Cough; sometimes they are sprinkeled among the smal poxe or measels, and sometimes they happen to persons in Health.

IV. *Rossaliæ*, *red fiery spots*, which breake out at the begining of the disease, al over the Body, as it were certain smal Erysipela's, though the tumor is hardly discernable; sometimes they breake not forth til the fourth or fift day; in the progress of the disease they occupy the whole body, so that it looks as it were al on a red fire. Which color is againe changed into spots as at the beginig; which vanish at last upon the seventh or eight day. The Epidermis or scarf-skin, faling off like scales. The *Cure* of these requires nothing singular.

Article. III. *Of the spotted Feaver.*

Febris petechialis, or the spotted feaver, is a malignant Feaver, in which certain spots like flea bitings of sundry colors, but cheifly red, appear upon the skin.

These spots are called *puncticulæ*, *petechiæ*, *peticulæ*. Whence the feavers are termed also puncticulares, peticulares, and *lenticulares*.

The SIGNES are the same as in malignant feavers. The spots are without any itching, extuberance and exulceration. They appeare in the back, Armes, Thighes, Breſt; viz. places through which the most notable Arteries and veins doe passe. Seldom in the face because the cold air repels the matter from thence. There appears no prick in the middle of them, and so they are distinguished from flea-bitings.

The CAUSE is, the thinner part of the putrid humor, which makes that they soone vanish. 'Tis *driven forth* by the expulsive faculty, Seldom critically, seeing they commonly shew themselves at the beginning without any remarkable evacuation; alwaies for the most part *Symptomatically*, and by how much they are more plentiful, they do the more signifie the abundance of corrupt matter in the Body.

The CURE *is* Hazardous, if the spots are many, because they shew that there is much matter. If they be few, and accompained with signs of Natures weakness. If they disappear; because 'tis a sign they strike in again. If they come forth slowly; because it argues grossness of matter, or compactness of the Skin. 'Tis *Performed*. 1. By *withdrawing the matter*, effected by blood-letting, which must be practised before the fourth day, Lenitives being premised to loosen the Belly, to which a little Camphire may be added: if blood be drawn later, the Patient wil be over weakened. 2. By *Expelling* the same, with Sudorificks resist malignity, premising (if you please) such noyntings as may open the pores. In this case, *Bezar* stone is good, and Emulsions of *Navew and Citron* seeds, with Cardius Water and Syrup of Citrons. The *Bones*, *Blood*, *horns* and *Skin* of the *Rhinocerote* &c. 3. By *Roborating the Faculties*, with Emulsions of *Corals* and *Pearles*. *Confectio Alkermes*, &c. 4. Somtimes also by *Revelling* the Humor to the external Parts by Vesicatories, if the external parts are cold, there be Head-ach, ravings, Convulsions, &c. If the Patient be loose bellyed,

lyed, we must not stop the loosness, unless it be too excessive.

The *Differences* are taken from the Quantity and colour. Some are *plentiful*, others *few*. Some *small*, others great. Some are *red* from putrefaction of temperate blood, others *Yellow* or *Green*, from choler. Others of a *Pomegranate* and *Blackish* hue, from Melancholy, &c.

Article IV. Of the Hungarian Disease.

Morbus Hungaricus is a continual feaver, malignant and contagious, ſyneth with abundance of evil humors about the ſtomach and firſt Paſſages, and with an extream headach.

It may be called the *Camp* or *Souldiers ſickneſs*, because, it had its original in the Souldiers Camps. Its *Signs* are, the same with those of malignant Feavers. Also great pain in the Head, as also hardness about the stomach and are remitency to the touch, under the *Mucronata Cartilago*; vomings, which cease when the matter turnes to the Ears, and causes Deafness: many times spots appear, as in the spotted Feaver, &c.

The CAUSE is either the Putrefaction and corrouption of Humors in *Vena Cava*; or Contagion.

The CURE is *hopeful*, if the matter tend to the Ears. If it be Evacuated by stoole. 'Tis *Performed* according to the Nature of the Causes, which see in the Differences: and has great respect, both to the Feaver and the malignity.

'Tis divided with respect to the Causes.

One sort comes from *Corruption of humors* in the *Vena Cava*, which are cumulated by Errors in Diet. For the Hungarian Air, is thick a Nights, thin and hot a daies. The Soldiers receive in, the Vapors which exhale from the ground. Their Diet is commonly bad, and tending of it self to putrefaction, &c. 'Tis *known* by the Diet foregoing, and pain of the stomach. 'Tis *Cured*. 1. By drawing forth the Humors, both by stoole, where *Agarick* is commended; and by vomit: also by opening a Vein in the Arme or Ankle, which must be done the first or second day: if some daies are slipped, and either the belly be loose, or vomiting happen, omit it. 2. By *Diſpelling* the malignity by moderate Sudorificks frequently given, where both *Antimony Diaphoretick*, and *Treacle* are useful, given in cooling Waters. 3. By *Diet* suitable to malignant Feavers. Those that drink Wine, are like to die for it.

Another comes by *Contagion* or *Infection*, in which case Purges and Vomiters must be omitted, and only the malignity resisted.

Article V. *Of the Sweating-ſickneſs, the malignant Feaver with Cramping, and that with the Cough and Catarrh.*

The Sudor Anglicus *or sweating-Feaver, began in England in the dayes of Henry the ſeventh, vexing the Patients with extream Head-ach, Unquietneſs, Panting of the heart, perpetual and plentyful sweats.* The Cause is laid to be the moist and Venemous Constitution of the Air, enemy to the spirits, Heart, and noble humoral part of Humors; and peculiar Influx of the Stars concurring to the said Corruption. Twas *Cured* meerly with Sudorificks, *viz.* Sorrel Water, Scabious water, *Terra Sigillata*, &c. The Fit was finished twenty four hours together. The Patient was not permitted, neither till the sweat was over, nor to be uncovered, but was in the mean while refreshed with the Juyce of Citrons, Pomegranats, &c.

The Malignant Feaver with a Cramp, *which arose in Germany in the year 1505. Does vex the Patient with sundry Symptomes, and the Cramp among the rest.* Many were suddenly taken, some with falling sickness, others with the Apoplexy, in some raving: did endure for some daies, by reason of the Contagion, which in the space of two years after, did Glew it self, spread abroad, &c. 'Tis *Caused* as was thought, by putrefied Ichors or blood-waters, and malignant Vapors infecting the Nerves. Which were judged to arise from bad diet occasioned by a general Dearth. In the Cure, the bad and Venemous matter was removed, and the Nerves being debilitated were made strong again. See touching this Disease a discourse of the *Physitians* of the University of *Maspurge*, and *Senhertus*, Book 2. Chap. 22. *De Febribus.*

A Malignant Feaver with a Catarrh and Epidemick Cough, arose in the year, 1580. And about the rising of the Dog star or beginning of the Dog daies, it ranged almost all Europe over. It took the Patients with a feaverish heat, Head-ach, and dry Cough, pain of the breast and *Saltum Transversum*, roughness of the Jaws, shortness of breath, &c. 'Tis thought to arise from the moist constitution of the foregoing years, and continual

blowing of the South wind. The Feavers *Cause* might be the Rheumatick matter, diffused through the Veins, unless haply the Feaver being the pointaby Disease, Nature endeavoured to eject part of the Humor, she was troubled with, that way. In the *Cure* respect was had to the Humor which *Fomented the malignity*, which was expelled, and the *malignity it self* which was encountred with *Alexipharmaca*, and the Reliques of the Humors were altered. To the *Member affected* which was assisted by appropriate Medicaments.

Title VI. *Of Pestilential Feavers.*

A *Pestilential Feaver, is a continual putrid Feaver, which arises cheifly from the Air and Contagion, whose most fearful, precedent Putrefaction and heat from the destructive and Venemous Nature of the poysonous Seminary, and afflicts the Patient with Bubo's and Carbuncles, and greater Symptomes than are usual in malignant Feavers.*

Its SIGNS are, Symptomes fewer and milder than are usual in the Plague; of which we shal treat in the next Chapter, see more in the Differences.

The CAUSES are the same with those of the Plague, and differ only in respect of the Contagion, Vehemence and Magnitude.

The CURE is *hard* or *easie*, according to the multitude, Paucity, Benignity or Vehemence of the Symptomes. Regard is therein to be had, both of the *Pestilential Venom* and of the *Putrefaction* and *Feaver*, which are to be compared one to another. It is Performed, I. By *Sudorificks* not very hot, especially if the malignity and Putrefaction are more urgent. *Distilled* waters are most efficacious; and Volatil salt of *Harts-horn*. II. By *Blood-letting*, before the malignity be shed abroad into the whole Mass of Blood, other things being considered which are contained in the general Precepts. III. By *Purgation* of *the first Passages*, especially by Clysters, especially if bad Humors abounding be the Cause, but Antidotes must be given afterwards. IV. By *Application* of *Vesicatories*, to the Thighs, Armes, the bending of the Arm, as the place shal advise, to which the matter we would reveal or derive, does take its Cause, or about which is cheifly residents.

This Feaver admits a threefold Division.

I. One sort comes with the *Pestilence*, another is *without the Pestilence*.

II. One sort in which *both Putrefaction and malignity* are at the Height, Then the Patients are extream weakened and by reason of the Putrefaction divers Symptomes, as watching, Head-ach, Unquenchable thirst, &c. Shew themselves. Another in which *Putrefaction is high and the malignity remiss*. Then the Patients are not so much weakened, the Heat in the outward parts is answerable to the Putrefaction til the state; about which time, if the Patient must die, the outer parts begin to be duke warm, & soon after grow cold. Another, in which the *Putrefaction is remiss* and the *Malignity Vehement*. Then the Feaver is gentle and the Heart exceedingly hurt. It kils the Patient, while the Patient and Physician are secure of any danger.

III. One sort is beleeved to be an *Ephemera*, another *Humoral*, another *Hectick*. But because the spirits are not only heated, but also corrupted; because the heart is not only affected in its temper, but vitiated in its substances, no Pestilential Feavers, can be either *Ephemera's* or Hectick. Howbeit, because some difference appeares among them, and now the heart it self, at another time the spirits, and another, while the Humors are most affected; by reason of the similitude it has with others properly so called, it may receive such a Denomination.

A Single Chapter, *Of the Pestilence.*

The Pestilence is a Contagious Disease of the Heart, bred of a Venemous and Contagious matter, Suddainly and mortally afflicting al the Actions of the Heart, with an Heap of al kind of Symptomes.

It is a Disease, and that. 1. *Epidemick*, because of the common Cause and of the infection. 2. *Joyned with Putrefaction*, so as not to be judged of cheifly thereby, for so a *Phthisis* shal be more pestilent; in putrid Feavers there should not be more heat than in the Venemous sort; Antidotes were needless; nor does it alwaies cause a feaver, as appears by many instances. 3. *Venemous*, because it oppresses al the vital faculties, and suddenly kils.

The

The SIGNES are, either of it *when coming*, as 'its being in neighboring places; the proceding of ſuch things as may infect the ain, ſuch as filthy vapors iſſuing from the earth, corruption of fruits. Effectes of the aire enclining to corruption as are, great abundance of toad-ſtools, withering of plants, multitude of Inſects, frighting of the Cattle, muſtineſs and clamines of bread expoſed to the nights Air, ſoon ſtinking of fleſh, plenty of ſmal poxe and meaſels, &c. Or *preſent*, a ſuſpition whereof is, when very many that are taken ſick die, if it creep from one ſick perſon to another. If the patients be ſuddenly extreamly weakned. If Bubo's and carbuncles appear in a place, the aire being infected. If the ſpots called plage tokens, be ſeen upon the dead bodies.

The CAUSE of the peſtilence, is a *venemous* & *contagious* matter. This proceeds. I. From the Aire, which is *ſometimes* prepared to receive the peſtelence, by mutation of the firſt Qualities; *ſomtimes* 'tis corrupted, without any mutation; *either by* permiſſion of ſundry exhalations, breaking forth of the earth and waters, eſpecially when Saturn paſſes through the ſignes of Aries, Capricorn and Sagitrius, being after an accute manner and totally adverſe to the Heart; *or by* ſome hidden aſpect or Influxe of the ſtars. II. From *Bad Diet*, where the ſaltineſs of the Humors, the ſooner ſhewes it ſelfe, if ſom occaſion happen from the Aire. III. From the *witchcrafts* of Necromancers living and infecting; and of dead witches which are laide in their graves, before their Heads are ſeperatted from their ſhoulders. IV. From *imagination and Terror*, which agitate the humors in the body, ſtir up the peſtilential ſeminary, and plant it deep in the heart. Touching the *Contagion*, we have ſpoke in the firſt Book,

The *Phyſitions Care* reſpects three things; *Preſervation, cure, and Removal of Symptoms.*

As for the point of preſervation. I. The *Cauſes* which infer the peſtilence muſt be removed. II. The *Bodies* muſt be made leſs apt to receive the peſtilence. Let therefore the body be purged thrice a week with pil ruffi a ſcruple. Let not the body be weakened by *Blood-letting*. Let *Meat* be uſed of excellent Juyce ſawſed with antidotes. An *Yſſue* may ſometimes be made, to give the Humors ſcope. The *Air* muſt be kept pure with fier and perfumes. Let the noſtrils be noſtrils be ſmeared with vinegar oyl of ſcorpions, &c. Let *Amulets* be hanged about the neck of quick ſilver incloſed in a nut-ſhel; Arſnick, &c. Nor let any thing be mingled with the Arſnick to abate its Vertues. Nor let theſe amulets be heated by motion, leaſt they penetrate through the pores *into* the Body. Amongſt Antidotes, *Treackle* is comended, Electuary *de Ovo*, Elixir *proprietatis*, *Bezaar* ſtone, Salt of vine branches and of *Milleſoile*. *Extractum Junipernium*, &c. Let Hot medicaments be tempered, and firſt macerated in vinegar.

The CURE is abſolved, I. By *Blood-letting*, which muſt be performed after the taking of an antidot if there be ſo much plenty of blood, that a putrid feaver is feared in any ſide; if there be no plane, if there be, on the Arme of that ſide where the pain is made is a Carbuncle that cauſe great pain and inflamation, in the ſpace of twenty foure Houers. II. By *purgation*, after an antidote has bin given, if all humors give ſuſpition of a feaver to follow; if the peſtilence have riſen from an inward corruption of Humors. III. By giving *Sudorifics* and *Alexipharmaca* among ſmples the *Herculanian Unicorne* is commended. The blood of a Rhinocerote, five drops given in ſorrel water. A bit of his hide boyled in water of ſorrel in which red hot gold muſt be quenched. The juyce of the Pap of the Braſilian fruit called *Muracuiao* Haſu. The *Berry* of Molubra poudered to the quantity of five graines, in roſe or ſorel water. The juyce of *Galega* or Ruta Capraria, the quantity of three ounces, &c. Of compounds, the ſyrup *Meliſſa Fernelii*; *Septalius* his ſyrup or *ſucco Galegæ*, Quidiny of elder berries with Treakel Vinegar, Crollius his Elixir *peſtilential*, Diaſcordium, three drams, eſpecially in women with child and in children, Pouder of *ſmaragd ſtone prepared*, Bezar ſtone of each eight grains. *Hiacinth* præpared three grains ſee Sennertus of Feavers towards the End. In the *Uſe* of theſe things *obſerve*. Hot antidotes like treacle muſt be tempered with ſuch as are of a colder nature. That treacle and Methridate, and other ſtronger medicaments muſt not be given to women with child, nor to children. Such as have weakneſs in their ſtomach and Head, muſt abſtaine from Camphorat Medicaments. Some Medicament is to be given or other thrice every four and twenty houers. At firſt the *medicaments* muſt be *very often changed*, leaſt nature growing accuſtomed, come not to be moved thereby. Waters, Spirits, and ſuch other things as wil moſt eaſily penetrate muſt be given principally. The patient muſt abſtaine from ſleep til he or ſhee have under gone two

ſweats

sweats. While the sweating lasts, refresh the Patient with the Juyce of Carrots, Cardiuus water and Treacle being finished, cold Air must be avoided, and the sick refreshed with meat.

Symptomes of the *Pestilence* are, the *Bubo*, the *Carbuncle*; the Burning Feaver. The *Bubo* imports less danger, if it be great and eminent, if it breaks out at first, and in the groins. It is more deadly, if it be lead colored and black. If it lie lurking under the Skin. If it breaks forth beneath the Neck or under the armpit, on the third or fourth day. *Most dangerous*, if it vanish and leave the Patient weak. When it *strikes in* it must be called forth, either by fixing a Cupping Glass, or with a pultis of Radish Root and *Scrophulary* the great, with a little of Salt, Vinegar. When it comes *far out*, it must be drawn to the more ignoble parts; from the Neck to the hollow of the hand, from the Groins to the soles of the Feet. To this purpose there is an useful Cataplasme made of two ounces of the greater Scrophulary Root, Radishes one ounce, beaten, and with one ounce and half of the strongest Leaven, and boyled in Wine Vinegar, and so made into a pultis, and applied to the Palm or hollow of the Hand or the Sole of the Foot, on that side on which the bubo is. It must be renewed three or four times in a night. Being *Fixed*. 1. It must be often drawn with a Cupping-Glass and store of flame, without Scarification. 2. The Cupping-Glass being removed, let it be covered with a ripening *Cataplasme*, and drawing, made of the Roots of *Scrophularia*, Salt, *Black Sope*, and strong *Leaven* boyled in Vinegar. 3. After six hours let a Cupping-Glass be again set on, and let the Skin be cut with a Lancet or small Knife. 4. Let a *Cataplasme* ripening and drawing made either of a *great Onion* hollowed, filled with Treacle and roasted in the Embers til it be soft; or of the *middle rind of Elder* boyled in Cream, and mixed with Leaven; be laid on at Night, and often renewed. 5. Let the Tumor, the following day, be either cut or prick, and the Blood water squeezed forth; and let a mundifying or cleansing plaister of *Turpentine* wash't in *Scordium* water, and honey of Roses mixed therewith, be applied.

Touching the *Carbuncle* and *Feaver*, which is also entertained by certain symptomes, see in their proper places. See concerning the Plague *Peter Salius Diversin*, *Joel* Tom. 5. Sect. 3. *Septalius* in a peculiar Treatise and *Valerius Martini*. And so much concerning Feavers.

THE

THE EIGHTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the Diseases of the Head.

Title, I. *Of the Diseases of the Brain.*

Chap. 1. *Of the Distemper of the Brain without Matter.*

HItherto we have treated of Diseases in the general; the *Particular* now follow; and these are either such as are *not Venemous*, or such as are *Venemous*. Unto those belong the Diseases of the *Head*, the *middle*, and the *lowermost belly*, commonly called the three Regions. The Diseases of the Head are either those of the *Brain*, or of the *Eyes*, or *Ears*, or of the *Nostrils*, or of the *Tongue*, or of the *Lips*, or of the *Face*, or of the *Mouth*, or of the *Teeth*, or of the *Gums*, or of the *Cheeks*, or of the *Wesand* or Windpipe, or lastly of the *Jaws* and *Tonsils*. Unto *the Diseases of the Brain* are referred (as thereunto belonging, a distemper, (which the *Latins* cal *Intemperies*) *the straightness* (or stoppage) *of its passages*, *Commotion*, *Inflamation*, *Hydrocephalius*, (being a cold Disease thereof proceeding from water and Flegm, *Contusion*, *wounds* and *Fractures*. The distemper (or *Intemperies*) either is *without matter*, or else with *matter*.

The Distemper of the Brain without matter, is the declining thereof from its due and right temper, through some external causes.

For the *Signs* and Causes, see of them in the differences.

The CURE is performed by *Alteration* and *Purgation*, lest that the Body, if it be either Plethorical, or Cacochymical, should attract more Vapors.

It is *divided* into four species, or *kinds*.

I. the first of them is hot, when the Brain declines unto an immoderate or overgreat heat. It is discerned and *known* by the beating of the Temples, the agitation within the Cranium or Skul, by the sleep which is either none at al, or else very short, and by the instability

and

and mutabillity of the Imagination. It *ariseth* from external hot causes, towit, Aire, meat, drink, & exorbitant affections, &c. It is to be *cured*. 1. By *alteration* and that by cooling medicaments, as wel internal as external; and these not over strong, especially in children and women; having in them a mean and indifferent astrictive quallity left that the humors should be either attracted, or dissipated; not too frequently applied and made use of, lest that they should introduce and cause a kind of sencelessnes or stupidity; and then lastly, they are to be mingled with dissolvers, when the distemper is in 'tis declination. The cheif and principal of them, are the leaves of *Lettice*, and *Purslan*; the flowers of *Roses*, *Waterlily*, *white* and *Red Popy*, and *Saunders wood*; together with those medicaments that are preprepared and made out of those, such as are fomentations; which are to be corrected with such things as penetrate by reason of the thinnes of their substance, as doth Vinegar, &c. These remedies are to be applied to the forehead, Temples, and Sutures. So soon as they begin to wax hot, they are to be changed; neither are they to be tyed on or covered with thick clouts, or linnen often doubled. For Embrochations and washings of the Feet, are most in request, the Leaves of *Sengreen*, *vine Leaves*, and the *Leaves of the Willow Tree*. The flowers aforesaide, as also of the *Elder Tree*, and the *root Rhodia*, a cataplasm made of *willow Leaves* and *Vine buds*. 2. By *Evacuation*, for the cause before alledged. 3. by a *diet* inclineing to coolnes more than ordinary.

II. The second is *Cold*, when the Braine declineth unto an excessive or over great coldnes. And this is *known* by the swelling of the eyes, the palnes, of the face, the heavines of the head, propension to sleep, slothfulnes and slugiggishnes. It *proceedeth* from things external, that either are cold in themselves, or at leastwise induce and cause cold. It is cured, 1. By *Evacuation*, if the body be Cacochymical. 2. by *Alteration*, which is effected by the use of things External and internal that are hot, and these must be taken after meat, and never before. The cheif of them, are, the Roots of *Piony* taken out of the earth at the waning of the Moon, the root of *round Aristolochia*, *Castorium*. The flowers of *stæchas* or *cotten weed*, *primrose*, pealings of the bark of the *linden* or *tyle tree*, of flowers of *lillyes* of the *vally*, of *Rosemary*, *Bettony*, *Marjoram*, *Black cherry* water, the water of swallows, *Treackle water*. The Quintesence of *Rue*, of *Rosemary*, of *Succinum*, or *yellow amber*. Of condites, the *Indian nut*, *nutmeg*, *treacle*, *Mithredate*, the restorative *Confection*, called *Anacardina*, and *Alkermes*. Distilled Oyls, as of the *Wood Guajacum*, and of *Saffafras*, taken either in waters, or else in smal morsels. The leaves of *Rue*; *Wild bettony* and the right *Verveyn*. Ballsams, of *Lavender*, *Rosemary*, *yellow amber*, Cloves, nutmeg, &c. 3. by a *diet* somewhat inclining to warmth; where likewise suffumigations have their use and place.

III. The third is *Moist*, when the brain inclineth unto an overgreat humidity or moistnes. It is known by the humidity that appeareth in the nostrils, and the eyes, by the Catarrhs that follow upon it, and the propension unto sleep. It *ariseth* from some external causes that are not natural, and such as produce humidity; such as are showers of rain, the moon beams, &c. It is *cured*, 1. by Alteration, which is archived by such things that being in their own nature moderatly drying are mingled with coolers, and not strong sented or perfumed: but internally by decoctions, and especially that of *China*, & *Guajacum*, into the which a little veal broth (to allay and qualifie its drines) is to be put. Externally, there must be prescribed *Embrocations*, and those little baggs that we commonly call *sacculi*, made of *millet* or *Hirse*, *salt throughly dried by the fire*, the roman *nigella* or *nightshade* (commonly called *Gith* or *pepper wort*) &c. 2. by a diet conformable unto that that is prescribed to such as use the decoction of *Guajacum*.

IV. The fourth and last *species* is *dry*, towit, when the Brain recedes unto an excessive and immoderate dryness. It is *known* by the hollowness of the eyes, want of sleep, deformity of the face; the sharpness of the senses, and the Causes afore going. It arises from External causes; but more especially from the over great evacuations of the body, excessive and frequent waterings, fasting or an over spare diet, melancholly or sadness of the mind, and overmuch Study. It *is cured*. 1. by Internal *moisteners*, as for instance, the emulsion of the greater cold seeds, and *Violet flowers* or externals, such as is the top or froth of whey. 2. By a *diet* more than ordinarily moist; such as is the fat broths made of yong flesh, eggs rere boiled and sup't up, and a bath of sweet water, &c. And here *Salt* must be very sparingly eaten, or rather altogehher carefully avoyded.

V. A Fifth and laſt *Species* or kind of the Brains diſtemper is *Compound*; the Nature and reaſon whereof may be known from the connexion of the ſimple or ſingle diſtempers; ſo that it is no way requiſite or neceſſary, that we here ſpeak any thing more concerning it.

Chap. 2. *Of the Diſtemper of the Brain with Matter.*

THe *diſtemper* of the brain with matter is, the declination thereof from its *due temper*, cauſed and brought upon it both by external and internal cauſes, towit, the humors, and flatulencies or windineſſes.

The SIGNS are, the Progreſs of the internal cauſes, and the alteration and change of the diſeaſe at the firſt apearances of the Moon.

The CAUSES are internal, towit, humors, and Winds or windineſs, which proceed either from the weakneſs of the brain, or elſe from the repletion of the inferior parts.

The CURE is performed, I. By an *Evacuation*, and that as wel *General*, where a regard muſt be had unto the *Pills* that are to be taken, towit, that in reſpect of their ingredients ought to be made moſt efficacious, and then given in the morning; unto the whole Body, which ought to be purged; unto the abſence, and preſence of a Feaver, leſt that there be an Evacuation of ſuch things as are not concocted; unto the Clyſters that are to draw back the peccant matter, and theſe are by no means to be omitted: as *Special*, where in the firſt place are to recounted thoſe Medicaments that are uſually thruſt or put up into the Noſtrils, (we cal them *Errhina*) and theſe ought to be ſuch as are moſt of al drying, provided notwithſtanding that there be nothing amiſs in the Eyes and Noſtrils. Secondly, Thoſe things that provoke unto ſneezing, (we term them *ſternutatoryes*) eſpecially if the Head be filled with Vapors, and within cheriſh a groſs and thick ſnotty matter. Thirdly, *Apopblegmatiſms*, if the Lungs be free from an Ulcer, and the Humors not over thin. Fourthly, Thoſe Remedies which we cal *Cauteries*, *Setacea*, *Topicks*, &c. II. by Correction of the *Diſtemper*.

It is *divided* in a Threefold manner.

I. The firſt is according to its *Eſſence*, when the matter is generated in the Brain. It is *known* by this, that thoſe Symptomes that follow upon the Affect do preſently appear; that they continually afflict, unleſs haply the matter be generated in the Head by certain intervalls and degrees; and that the Cauſes affecting the Head went before. It *ariſeth* as wel from a fault in the Brain through an ill concoction, as from the retention of the excrements thereof, by reaſon of the hurting of the expulſive Faculty, or its paſſages. The *Cure* differs not from that which hath been before ſpoken of, and of which we ſhal ſpeak further in the following diſcourſe.

Another diviſion of the Brains diſtemper is, *by Conſent*, (or ſympathy, when the matter is tranſmitted and derived unto the Head from ſome other place. It is *known*, by the general ſigns, of which we have ſpoken in the firſt Book, and firſt Title thereof. *It* proceeds likewiſe from the ſame cauſes, of which we have there at large treated. In the *Cure*, 1. We ought to *begin* with the part tranſmitting, but if there be any *Criſis*, there is nothing to be applied, unleſs there be a vehement motion of the matter. 2. There muſt be a *Revulſion*, or drawing back, by opening of a Vein in the Arms or Thighs, by Cupping-Glaſſes, by Clyſters, by frictions or rubbings, and by cauteryes. 3. There ought to be uſed repulſion, or Driving back, by Medicaments made of Vinegar and Roſes (we cal theſe *Oxyrrhodina*) unleſs there be a diſcovery made either of a Feaver, or a Catarrh, or overmuch watchfulneſs and want of ſleep, by reaſon of ſome wound either in the *Cranium* or skul, or elſe in the Membranes of the Brain. 4. There ought *an interception to be made*: The Differences whereof are various, according to the Variety of thoſe parts from which the matter is ſent. 1. From the *whol body*, as in Feavers; and then we muſt rather ſtudy to make uſe of revulſion and Evacuation, than Repulſion or driving back. 2. From the *Stomach*, *Spleen*, *Liver*, *Rains*, *Womb*, *Diaphragme* (or Midriff) and the *External parts*. And then it is known by the effects of the tranſmitting parts, and accordingly the Cure is to be taken from them.

II. Another is from a *wind* or vapor, which is *known* by the ſenſe and feeling of an Extenſion or ſtretching out, or by an heavineſs in the part affected, a kind of ſinging noiſe in the Ears, the extraordinary beating of the Arteries, and the Vertigo, or lightneſs and giddineſs of the Head. It *ariſeth* from the ſame cauſes, of the which we have already ſpoken in treating of the cauſes in general; unto the which in ſpecial, there may be added, as thereunto appertayning, ſcents or ſmels, to wit,

things of an ill Savor, Vapors arising from Metals, the smoke of coals, &c. It is *Cured* diversly according to Nature and diversity of its *species*, or several kinds. It is divided in a two fold manner. 1. The former division is taken from the *external Causes*, as Metalline Vapors, &c. And this is expelled by *Zedoary*, by the smoak of coals, in which case (as the remedies thereof) there is required an Air free from al il Savors, Treacle Water, and Sternutatories, or such things as cause Sneezing; by the wind, either when cold, or hotter then is usual; for the remedying whereof, such things as are thereunto opposit, are necessarily required, and very serviceable. Another proceeds from things internal, whether overhot, or overcold. 2. There is another *Species* of it by its *Essence*, and then a pain and heavines of the Head undoubtedly preceded, without any affects of the inferior parts. This is to be cured by internal discussives, and the scent of things that are appropriate unto the Head. There is another kind thereof that is by *Consent*, or agreement with some other parts; and then the Neck veins are distended, the Urins (in the top or superficies of them) filled ful of little windy bubbles; winds arise, either by the fore part, with the extension (or stretching out) of the Breast, and the beating of the Arteries at the very bottom thereof; or else by the hinder or back part, together with a distension of the Veins and Arteries of the same aforesaid part. They *arise* from other parts that lie underneath. In the *Cure*, regard is to be had, first of al unto revulsion, or drawing back the offending matter by Clysters somwhat stronger than ordinary; and next unto repulsion, or driving back the said peccant matter, externally by Application of things made up of Vinegar and Roses (as above said) and internally by the Conserve of Roses, &c. And then lastly, special regard ought to be had unto Evacuation by purgers corrected with Carminatives.

III. Another Division is from the *Humors*; and this is either proceeding from the *Blood*, or else it is *Cholerick*, or *Flegmatick*, or *serous* and wheyie; or otherwise it is *Melancholy*, and *Adust*, as consisting of burnt Choler.

I. The Sanguin *Distemper of the Brain proceedeth from the blood either over thin, or too thick.* It is *known* (unless it proceed from some external Cause) by the extension and heavines of the Head (Especially when the South West wind blows) the rednes of the Eyes, the gentle and moderate heat, and by the pain of the forepart thereof from the Ninth hour of the Night unto the third hour of the morning or day following. It *ariseth* from a Plethory and its Causes. It is derived into Act, and made to appear by the extream and over vehement affections and passions of the Mind, much drinking of wine, and by such other things that cause heat or pain in the Head. The *Cure* must forthwith be set upon, and attempted, lest that an inflamation or some other affect should flow therefrom. And this is *accomplished*, I. By the Diversion of that blood that is flown into it, by opening the *Cephalick* or Head Vein, or else the *Saphena* and Foot Vein, if there be a suppression of the Monthly Courses, or of the *Hemorrhoides*; (for by no means we are in this case to attempt the opening of an Artery, for fear that the Tumor *Aneurisma* should follow) which aforesaid blood-letting doth both Evacuate or empty forth, and draw back the peccant humor: as also by the Application of Cupping-Glasses unto the Loyns, shoulder blades, and Neck; and likewise by a gentle Evacuation: as also by repulsion or driving back, which is effected by the Use of repellers that (in the winter) are potentially cold, but in the Summer time actually such; if the sick person be young, unless there be present a Catarrh; and this repulsion ought to be instituted by frictions or rubbings. II. *By a sensible drawing forth of the blood that hath flown in* by the passage of the Nostrils, rubbed hard and chafed with *Milfoil* or *Yarrow*, by opening of the Vein that runneth strait along into the forehead, if it be the hinder part that is affected; by *Discussion*, and by a Convenient *Diet*.

II. The Cholerick *distemper of the Brain proceeds from the Superabounding of choler.* It is *known* by that sharp and pricking pain, especially on the right side; by the extraordinary burning heat; by the depravation of the actions of the Brain; by the many, and those very yellow excrements of the Ears; and lastly, by the bitternes of the Mouth. It *ariseth* from Causes generating Choler. It is *divided* into that which is such by its *Essence*; in which the Cure is to be administred, I. By opening the Vein of the right Arm, after a gentle Clyster, and without the ordayning of any preparative before it, if there be not any Feaver present. II. By *Preparation*, (if it be needful) by cooling and moistening Cephalick Medicaments, which ought to be more or less strong, according to the power and strength of the choler. III. By *Purgation* with Aloticks

(that

(that is ſuch Medicaments as have Aloes for their baſis) and other Remedies that are ſpecially appropriated unto the Brain. IV. By waſting and *conſuming* the remainders or reliques, where Camphire (by reaſon of the over much want of ſleep) ought carefully to be avoyded. V. By *Digeſtion*, in the uſe of digeſtive Medicaments. VI. By a *Diet* that is wholly oppoſite unto the diſtemper. And Secondly it is divided into that which is *by Conſent*; in which we are to proceed, according to that way and Method formerly mentioned, and laid down.

III. The *Pituitous*, or Flegmatick diſtemper of the Brain is *known* by the ſigns alleadged and mentioned in the cold diſtemper of the Brain. The ſleep in this caſe is very profound and deep, or at leſt wiſe overmuch, unleſs haply the Flegm being looſened and diſſolved, a Catarry and Cough be thereupon excited. The pain is moſt of al in the hinder part of the head, afflicting the Patient from the third hour of the night unto the ninth. There is likwiſe an extraordinary paleneſs in the face, unleſs perchance it happen to be colored, or (as it were) painted al over with a certain kind of redneſs, through the dayly & continual reſidence of a part of the blood brought and derived thither. It *ariſeth* from Cauſes generating flegm, more eſpecially from a cold Brain, a hot and moiſt Liver, which tranſmits thither a ſort of blood that is ful of Vapors. The *Cure* hereof is ſomething difficult, eſpecially in the winter time; and this very Diſeaſe doth eaſily degenerate and turn into the Apoplexy and Palſie. The *cure* is performed, I. By *Alteration*, after the clearing and Evacuation of the firſt waies and paſſages; and this muſt be done by Cephalick Medicaments hot and dry, at firſt benign and gentle, and afterward by degrees ſtronger; and theſe ought frequently to be reiterated; and here we may proſperouſly Act by the Decoction of *Chyna* Root, *Guajacum*, and *Saſſafras*. II. By *Purgation* now and then interpoſed during the time of Alteration; and here the Pills *Aſſajereth*, *Aureæ*, and *Cochiæ*, or the *Extract* of theſe, have their place and uſe. III. By a particular *Evacuation*, by medicines put up into the Noſtrils, by Maſticatories, Gargariſms, waſhings of the Mouth, &c. IV. By the *Application* of *Topical* Remedies, among which Fomentations, Embrochations, Sacculy or little baggs, (by al which, the matter is inſenſibly evacuated) have their place and uſe. V. By *Application* of a Cautery unto the coronal Suture, or elſe by making an Iſſue in the Neck, if the Diſtemper be altogether refractory, and wil not give place, nor yield unto the aforeſaid Remedies. VI. By *Corroboration*, which is effected by appropriat Cephalicks. VII. By a *Diet* that is oppoſite and contrary unto the Cauſe and the diſtemper. It is *divided* into that which is from thick Flegm; (where preparatives have their place, as being of ſingular uſe; neither may blood-letting in this caſe be ſafely allowed of) and that which ariſeth from Flegm that is thin and fluid, and which excites and begetts a Catarry; and in removing of which, ſneezing wort, and al ſorts of Sternutatories, and *Errhina* (liquid Mediaments to be put up into the Noſtrils) that are over ſtrong and violent, ought carefully to be avoyded.

IV. The *Serous* or Wheyiſh diſtemper of the brain is *known* by thoſe ſigns and tokens that are before mentioned. It is derived unto the Head, either ſenſibly and by degrees, eſpecially together with the Arterial blood it ſelf, and likewiſe the ſpirits; or elſe al at once, by reaſon of ſome external more forcible Cauſes, to wit, overmuch drinking of wine, anger, violent exerciſes &c. It is *Cured*. I. By *the Evacuation of the ſerous Humor from the Brain*, without the premiſing or uſe of any preparatives whatſoever. This Evacuation is performed. 1. By a purgation of the Humor with ſuch Remedies as draw forth water. 2. By blood-letting, eſpecially if there be preſent any Feaver (although never ſo gentle, and an extraordinary heat which moveth the ſerous part of the blood unto the Head; and in caſe the accoſtomed Evacuation be ſuppreſſed. 3. By the Exhibition of Sudorificks that are over hot, as for inſtance, *Antimonium Diaphoriticum*, *Bezoartick*, the *Lunar Fumary*, &c. 4. By the *drinking of Diuretick* which are likewiſe very good and profitable to the ſpleen. II. by *Correcting the Diſtemper*; for which purpoſe we uſually preſcribe the powder of a mans bones, drying Lotions, &c. III. by *Diet*, touching which ſee and conſult the practical Phyſitians.

V. The *Melancholy* diſtemper of the brain is *known* by the dotage that accompanyeth it, together with fearfulneſs and ſadneſs, a pain eſpecially on the left ſide, turbulent dreams and oftentimes a ſudden loſs of al motion. Is *Proceedeth* from Cauſes that generate Melancholy. The Cure hereof is eaſie in its beginning. It is *Accompliſhed*, I. by the reiterated *Preparation* of the *Melancholly* Humor, (after the Purgation of the firſt waies and

passages) by the use of those medicaments that both heat and moisten, among which the syrup of *apples* is excellently good. II. By the evaccuation of the said humor by purging potions, at first, such as are genttle, but afterward such as are stronger in opperation (and here for this purpose *Lapis Lazuli* is much commended) adding thereunto such things as moisten; after which there must immedeiatly follow an evacuation by the frequent use of those remedies that we term *Errhina*, and other such like. III. by corroberating and strengthening the *Brain* by the *confection Alkermes*, with other suchlike confections. IV By *diet*, in the which vinegar (in regard that it doth ferment, and as it were leaven and sowr the mellancholly humor) is principally to be avoided. It is *divided* into that that is *Essencially* such; (in which likwise the opening of the cephalick or head vein of the left arme, and a copious letting out of the blood, if it be black, but a more sparing evacuation thereof if pure, hath its place and use, and into that which ariseth from the suppression ether of the *Monthly Courses*, or of the *hemorrhoides*, in which case revulsion, and the opening of the Ankel vein is to be put in practise.

V I The *Atrabiliary* distemper of the brain is *Known* by the want of sleep, and extream dobting of the sick party, and it *ariseth* from such causes as foment and supply a melancholly Juyce, and together with these (as it were burning of the same aforesaid Juyce) the extraordinary heat of the bowels may do very much. The *Cure* is very difficult, in regard that it to far receeds from the Temperament of the Brain. It is *atchived*, I. By an *often repeated preparation*, by coolers and moisteners, an evacuation of the first Vessels or passages being before premized. That compound which we commonly cal *Cachund* (of which hath already bin spoken in the melancholly destemper) hath here likwise its place and use. II. By a frequent and *reiterated evaccuation* of the black choler by medicaments, such as they term *Melanagogues*, well mingled together with Moisteners; as also by those things that peculiarly and properly purge the brain. III. By *digestion*, and that by *Topicks*, and sweet water baths, if yet the distemper wil not give place, nor be removed, then let the patient drink the whey of milk together with such things as are specifical remedies against melancholly, and of a moystening quality. It is *divided*, I. into that which is such in its very *sence*; (where the opening of the cephalick, or the common Basilick vein hath its place) and that which is caused by the suppression of the *courses*, or the *Hemorrhoides*; of the which sufficiently above. II, into that which is from the *blood* burnt or over heated; in which distemper the sick party is evermore very apt and propense unto laughter. And this is to be *cured* by letting blood; in the same manner as was that that was generated by *yellow choler*, (in which a bruitish kind of dotage, and fierce anger gets the upper hand) and that likewise that had its original from the *Melancholly humor*, in the which pensiveness or sadness, and a continued silence, or else haply (after a while, that this silence is broken) a tedious extream talkativeness hath the predominance, &c.

Chap. 3. *Of the straitness or narrowness of the passages of the Brain.*

THe *Straightness of the passages of the Brain then happeneth when the said passages are either obstructed; or compressed by their causes.*

Those passages are the *pores of the Brain*, which is of a spungy substance; the pores or passages of the stomach, the Veins, Arteries, Nerves, and the sutures of the Skul.

The SIGNS are taken from the diminution, or else the utter abolition of the actions of the Brain. The *Causes* are, either *obstruction* from pituitous and flegmy humors, blood poured forth out of the vessels, grosse and thick Vapours; or otherwise, *Compression*, and this either from the skul, by reason of some violence offered thereunto, or else from blood distending the vessels, (from whence they are affected with a flegmatick distemper) or else haply such as is shed forth and fallen into the substance of the body, by reason of the a bundance of its thinness, or acrimony; a pituitous or flegmy humor having first obstructed the Basis of the Brain; and lastly, by an hard tumor or swelling

The CURE is Various according to the variety of the differences.

The differences are taken from the many and several causes.

I. One difference is from *Causes External*, to wit, the fumes that arise either from coals, beer, or new wine, (common ly called musty) which even as it were Suffocate and Choak the sick person: And then in this case the patients are

are to be exposed into a free and wholsom Air. The vapours are to be discussed with *aqua vitæ* mingled with treacle; and then a vomit or sternutation is to be excited. Or else by the *Compression of the Skul*, from some blow. And then in this case the standers by and the Patient himself are to be advised withal. The brain is to be elevated or lifted up, as we shal shew further when we come to treat of a fracture. Or else it may proceed from the compression or defect of the *Sutures*, which can no way be corrected; or lastly, it may have its rise from the Humors and Vapors by their *Obstruction*, which said Humors, &c. are to be discussed by Fomentations.

II. Another difference ariseth from *Internal* Causes; to wit, I. From *Blood*, either poured forth without their Vessels, and so obstructing the Meander-like winding passages thereof; or otherwise so distending the Vessels, that of necessity the passages must be compressed. And *then* for the most part a *Plethory* is present and joyned therewithal, and the blood oftentimes breaks forth by the Mouth and Nostrils: unless this be done, it hasteneth on an inflamation, &c. by its putrefaction and rottenness. It is to be Evacuated and drawn back by blood-letting and Cupping-Glasses: and then it is to be derived by opening the forehead or the Tongue Vein. II. From *Flegm* that is clammy and *thick*, either compressing the basis of the Brain, or else obstructing the original of the nerves, & so shutting up and imprisoning the Animal spirits. *Then* some Causes generating Flegm, heaviness of the Head, dimness or darkness of the Eyes, the suppression of the wonted Evacuation of Flegm by the Nostrils and Jaws, went before; unless this be timely and speedily Evacuated, it causeth unavoidably the Palsy, &c. The *Cure* is to be begun and proceeded in after the same manner that we shewed before in the Pituitous or Flegmatick distemper. III. From *Vapors*, that proceed, *either* from more than ordinary food taken in, or else such as is excessively vaporous and windy; from which the sick person must now carefully abstain: *or* otherwise from Humors that stick fast in the lower parts, which are to be Evacuated. *Or* else in the beginning of Feavers; where there is special regard to be had unto the quality and Nature of them, and then accordingly the said Humors are to be drawn back, and depressed. IV. From a *Tumor*, which is hardly ever discovered while the sick person is alive, neither is it by any means curable.

Chap. 4. *Of the Commotion of the Brain.*

THe commotion of the Brain, is a removal of the same from its natural place, by reason of some External and violent causes.

The *Subject* of this distemper is the brain, but more especially according unto the superior parts thereof. The *Signs* hereof are, a sudden Consternation of the sick, insomuch that they become, as it were, altogether dumb, speechless, and likewise altogether deprived of motion, only they open their Eyes.

The CAUSE is either some violent blow, or dangerous fal, or the extream and over-long noise of Guns and Thunder-Claps; which either only disturb the spirits for the present, or else they cause a fracture of the skul.

The CURE is accomplished, I. both by the *Revulsion* of the *Blood* by opening a Vein, that so it may no longer too abundantly flow thereunto; as also by *Repulsion* or driving of it back again, evermore avoiding such things as are dry & astringent, lest that the pores should be obstructed, and the very breathing intercepted. II. by *Evacuation* of the *blood* (if any of it be shed forth, by opening a Vein, as wel that we cal *Puppis*, that is above the *Lambdoid* suture, as that other which is under the Tongue. III. by *Discussion*, and that at the first joyned together with Repulsion, but afterward used alone, by those Medicaments that heat and moisten.

It is *divided* into that which more *Moderate* and gentle, and that that is more *grievous*.

The *Lighter* and gentler of it is that, in which the Animal vertue is only with violence drawn back into the brain, & there followeth no rupture of the Vessels. And *then* there happeneth only a kind of drowsiness or sleepiness, and this likewise not over profound.

The more *grievous Species* hereof is that, in which also the parts of the brain are removed from their Natural Scituation, the passages are smitten, and the vessels broken. *Then* there chanceth an *Aphony*, or loss of speech. Blood is plentifully poured forth by the mouth and Nostrils. Vomits likewise (by the consent of the Stomach) infest, and exceedingly afflict the Patient. And after this, the matter becoming putrid and rotten, there ariseth a Fea-

ver,

ver, a dotage, a *Sphacelus* of the brain, &c. And the matter being thrust down unto the Nerves, other dangerous Symptomes follow thereupon.

Chap. 5. *Of the Inflamation of the* Brain.

THe Inflamation of the brain is a swelling thereof proceeding from blood poured forth out of the Vessels into the void spaces of that part, and there putrefying.

The SIGNS are, an acute and continual Feaver, which from third day to third day is exasperated; a perpetual doting, which began sensibly, or gradually, and by little and little, a red kind of color and deformity of the Face and Eyes, the Membranes being dryed up by the burning heat, Salt and sharp tears, the Excrementitious moisture flowing downward (as it were) of its owns accord by reason of the weakness of the part, a swift and quick Pulse, &c.

The CAUSE is, blood falling out the Vessels, and there putrefying, the transpiration there of being intercepted. It is *Poured* or empryed forth, either by reason of its store and over great abundance: or else by reason of its thinness and acrimony; those things likewise helping forward and furthering the same, which either carry the blood to the Head, or else at leastwise violently move and stir the same; and such are, the heat of the Air, pain, striking, a wound, wrath, &c.

There is but very little, or rather *No* hope at al of the *Cure* hereof, if a Convulsion follow upon it; if the Urin be white and extraordinary clear, because then the choler is forcibly drawn up into the Head; if a doting being at the first present, there follow thereupon gnashing and grating together of the Teeth by reason of the Convulsion of the Muscles in the temples, and Jaws; if it tend to a suppuration in regard that the *Pus* or filthy Corrupt matter cannot possibly be evacuated within or betwixt the Skul and the Membrane. There may be some hopes, if on the critical day store of blood flow forth at the Nostrils; if there be much (and that hot) sweat from the Head, and if after the heighth of the disease there be an Evacuation of abundance of yellow choler by the belly. There is but final hope of a Cure, if many of the Functions be hurt and empaired; if there be a trembling of the Tongue; if a kind of cold stiffness infest and invade the Patient, after he hath voided downwards white Excrements; if there appear to fal from the Nostrils a black drop, and that such is sincere or bright, in regard that it proceeds from a very vehement adustion; and lastly if they scrape together Straws, &c. It is *Performed* (if at al,) I. by *Revulsion* or drawing back of that *Humor* that floweth in, either by opening of the Cephalick Vein, or else, 1. Of al the Median or middle Vein (if there be present great store of the Humor) but yet not unto fainting or swooning away: or otherwise by Cupping-Glasses with a profound and deep Scarification, in the parts both above and beneath; or else by some other kinds of Revulsions. 2. By *Repulsion* or driving back by the frequent use of Repellers, unless the matter tend towards, and as far as the skin of the Head; or else by the applying unto the head, being close shaven, Remedies a little warm, tempered and qualified with Vinegar that is not over strong, if there be not present either an internal, or an External heat, or if there be any such heat, then by Medicaments that are cold. 3. by *Interception*, by the rolling of swath bands about the Neck. 4. by a *gentle Purgation*. II. by *Evacuation* of the *Humor* that is already flown in; and this must be performed by opening the Veins of the Head, those of the Nostrils, those under the Tongue, and the Aplication of Vesicatories, and a Cupping-Glass unto the fore part of the Head. By Discussion through the use of Medicaments made up of discussives, the Alabastrine unguent. III. by a *Diet*, in the which emptiness and over long fasting must be avoyded as pernicious and extream hurtful; &c.

It is *divided* after a Threefold manner.

I. The first *species* in the division is that which *Precedes* a *Feaver*, in which we are allowed to purge while the feaver is absent; & more especially if there be present an extraordinary cacochimy, cupping-glasses are to be imposed & applyed unto the very top of the crown, with scarification following therupon. Another kind thereof *followeth* the *Feaver*, in which likewise, we may purge with those Medicaments that are gentle and moderate, especially if the turgency or heightening of the Matter require it.

II. Another sort thereof ariseth *rather* from *blood* than *Choler*; in which a greater quantity and portion of the blood is to draw forth by opening of a Vein: but then there is likewise another, which proceedeth from *Choler rather*

than

than from blood; in which we ought rather to purge, than uſe any other means.

III. Another is an Inflamation of the *Membranes* of the *Brian*; unto which the ſigns before alleadged do very fitly agree. Another there is of the ſubſtance of the Brain it ſelf, in which there is at the firſt a pain ſeizing the Head, which by the hinder part thereof penetrates even unto the very nook of the Neck. In this diſtemper the ſick perſons do not dote, but yet notwithſtanding they loſe both their external and internal ſenſes; they likewiſe ſpeak very little, or not at al, &c.

Chap. 6. *Of the Tumor* Hydrocephalus *in the Head.*

HYdrocephalus *is a ſwelling of the Head, ariſing from the collection of ſome ſerous or wheyiſh Humor in ſome one part or other of the Members that conſtitute the Head.*

There is in this diſtemper no need at al of SIGNS; for the diſeaſe may be ſufficiently known by the very ſight of the party. It is rather the diſeaſe of Infants than of perſons of years and ſtrength.

The CAUSE is a Humor that is wateriſh, wheyie, and ſomtime dreggy, yea moreover alſo bloody.

The CURE is exceeding *doubtful*; as wel becauſe the diſtemper is in a Noble part; as likewiſe becauſe the ſubject part is very tender: as alſo in regard that an Apoplexy or a Lethargy do eaſily ſoon ſeize upon the party. But the cure (if there be any) is to be *Performed*, I. By *drawing forth* the *Water* with *Hydragogues*, ſweats, Urine, Medicaments that inſenſibly diſcuſs and dry, and by opening the part affected. II. By *Reducing* of the *Brain* unto its priſtine temperament by *hot Cephalick* Remedies.

The *Difference* is taken from the Scituati- of the Humor. For *one* kind hereof is from a water ſticking between the Skin and the *Pericranium*; and *then* the *Tumor* is ſoft, tranſparent by candle light, or the light of the Sun; as alſo it being void of pain yieldeth unto the touch, and immediatly ariſeth up again: being preſſed together it exhibites a motion of a fluctuating water. It yeeldeth more eaſily unto the Medicaments that are preſcribed, and may be wholly taken away by the alone opening and cutting thereof. There is another *Species* or kind thereof proceeding from a water (as aforeſaid) conſiſting and reſiding between the *Pericranium* and the *Cranium* or Skul. *Then* a pain affecteth the party; and in this caſe a two-fold Section or cutting part affected is to be adminiſtred. *Another* kind hereof there is from a water (as above ſaid) gathered together betwixt the *Cranium* or Skul, and the Membranes. *Then* the ſwelling is not ſo ſoft as uſually, but the pain is far greater; and the forehead is born out forward more than uſually: and likewiſe alſo the Diſeaſe is almoſt, not altogether incurable.

Chap. 7. *Of the Contuſion, or Bruiſing of the Head.*

A *Contuſion of the Head is a ſmiting or knocking together of the ſame (the external part thereof mean while for the moſt part, appearing ſound and entire) by ſomthing that is weighty, hard, obtuſe and blunt.*

The SIGNS are manifeſted by thoſe things that went before; the blood is poured forth out of the Veins; and there is an excited ſoft Tumor or ſwelling, black and blewiſh, and yet without any great, or much pain.

The CAUSE is expreſſed in the definition. The Skin being for the greateſt part whol and unhurt, there are notwithſtanding ſmal Veins opened under the ſame.

The CURE is in ſuch manner to be inſtituted, that, I. The great *afflux* or flowing to of the *Humors* may be prohibited; and that by blood-letting, if the Contuſion be greater than ordinary; as alſo by laying to and applying repellers and aſtringents; which are often to be removed and changed, leſt that they become overhot. The hair of the Head being cloſe ſhaved off, the place is then to be anointed with the Oyl of Roſes, about the time of the pains mitigation. II. Let the *Blood that is poured forth under the skin be Evacuated*, by the inſenſible Application of a betony plaiſter, the Cerot or ſeatcloth of *Vigo*, that of ſimple or red Lead, or *de mimio*, *de Matris ilva*, *de quatia dei*, &c. III. The *Suppuration*, (if it may not be impeded) is to be helped on, & furthered by *Triapharmacon*, which is compounded of one part of ſweet Oyl, two parts of common water, wheaten Meal as much as wil ſuffice; unto al which the Yolk of an Egg is to be added. IV. The matter being converted into *Pus* or matter (a Section being made in a ſloping place) is to to be extracted & drawn forth.

It is *divided* in a Threefold manner.

I. One

I. One is *with* a *wound of the skin*; of which we shal speak further in the following Chapter. Another is *without any* such *wound*; of which we now speak in this place.

II. *Another* is, in which the *Muscles* of the *Temples* are bruised together. *Then* doting, a Palsie, Convulsion fits, and death follow thereupon. A Section or opening ought to be instituted in some neer place, that so the Muscles moving the Head may escape unhurt. Another difference there is, in which the aforesaid *Muscles are not Confused* or bruised together.

III. There is one *Species* or kind thereof in men grown, and of perfect Age; of which those things that have been before spoken are to be taken and understood. Another there is of Children and such as are young and tender; in which, 1. (The Head being shaven or at least Polled with a pair of Sizers) a Linnen cloth throughly wetted in the white of an Egg, Vinegar and Rose water, is to be imposed and laid on; and then binding it about for the space of one whol natural day, the outward linnen cloth is to be moystened as aboveiaid. 2. The day following the Cataplasme called *Benedictum* is to be applied, and so to be continued on until the ninth day. 3. After the eleventh day, the Emplaster *Diapalma Galeni*, which is likewise to be shifted and changed the third day. 4. After the twentyeth day, the Emplaster called *Barbarum*. 5. If it proceed from Child bearing, the Emplaster *Diaphœnicinum* made of Roses, &c. doth excellently discuss.

Chap 8. *Of the Wounds of the Head.*

Article, I. *Of the Wound of the Skin, and the Pericranium.*

THe Wounds of the Head are in a threefold difference. For either they reach unto the *Skin alone*, and the *Pericranium*, the *Cranium* or Skul *Remayning untouched*: or else they reach the *Skul, without touching* the *Membranes*; or else lastly, they attain unto, and reach even the very *Membranes* themselves.

The Wound of the Skin (*the Cranium mean while remayning unhurt,*) *is, to wit, when the Skin alone, the fleshy pannicle, the Muscles, or even also the Pericranium is wounded.*

As for what concerneth the SIGNS; the wound is either apparent unto the very view and sight; or at least it may easily be discovered with the Chirurgeons instrument termed the probe.

The CAUSE, in regard that it is evident and manifest, there is no need that we should speak any thing more thereof.

The CURE is various, according to the variety of the differences of the distemper.

It is *divided* into a wound *with* a *Contusion*, and *without* a *Contusion*.

In a *Wound with a Contusion* or bruising together, 1. It is to be moystened and mollifyed in such a manner, that the natural heat of the part, debilitated and weakened by the contusion, the external Air, by medicaments, may be together cherished. 2. In the very beginning we must act and operate with *Ripe Oyl of Roses*, mingled wel together with the Yolk of an Egg in bodies soft and fluid, but in bodies hard to be wrought upon, with the Rosin of the *Larix* or *Larch* tree. 3. *Turpentine* is very excellent and sovereign for al wounds, especially of the Nervous or sinewy parts. 4. About the seventh day the *Pus* or filthy purulent matter doth more apparently shew it self. 5. If it be from the biting of a wilde beast, then the Lips of the wound ought to be scarified, and the rotten nasty corruption must be drawn away by blood-suckers or leeches; and then the ulcer is to be throughly washed with appropriate Medicaments.

In a wound without contusion, 1. the internal cause, viz. The hot and painful *dyscrasy* of the part is to be removed, by anointing the same with unguent of *Allabaster*, roses, &c. 2. If the gaping lips of the wound cannot be close Joyned together with binding only, then the suture whether bloody or dry, must be brought unto the touch; but some kinde of digestive medicament is to be imposed upon the wound: neither is this (notwithstanding, very easily done, and that by reason of the *pericranium*, which within adheres closly unto the *Cranium* or skul, and by the sutures is knit and joyned together with the internal membranes. 3. The skul being made bare and naked by shaving (which is done, that so a fit matter for the generating of flesh may be supplied, neither yet is without much difficulty to be effected) there are no unguents or oyntments to be laid on, but medicaments both actually and vertually dry together with drying liniments, (and of a bone-like temperament) are to be applied.

applied. But see more of this in the practical Physitians.

Article. II. *Of the wound or fracture of the Cranium or skul.*

The wound or fracture of the skull, is a continual solution in the same, caused by some external violence and force, and yet such as reacheth not, neither attaineth unto the membranes of the brain.

The SIGNS are taken *as wel* from the concourse of the symptoms that follow it, (as for instance, a vomiting of Choller, a flux of blood by the nostrils and ears, a fal, a noise of a broken bone, &c.) as from the nature and condition of the blow, where regard is to be had unto the striker, or that which giveth the blow, unto the condition of the head receiving the blow or stroke, and the disposition of the instrument: as also it is discovered by the chyrurgions probe (which ought to be neither too sharp, nor over thick) by ink, and by shaving thereof, &c.

The CAUSES are evident, dissolving and loosening continuity in the *Cranium* or skul.

The CURE is not to be hoped for, (for *Cure* there is *none*) if after the seventh day a eaver come to appear; because it is a certain signe and token of putrefaction and rottenness in the brain; or if the wound become withered, dry, purulent, and black.

The cure is very *doubtful*, if instantly the patients strength and spirits fail him; (especially if the Party be old, because then his heat is by much, weaker, and the blood serous or wheyish) if the head be prone and subject unto distillations, and the tumors called *Erisipelas*; if the symptoms, that soon began to appear and shew themselves, on the fourth or seventh day, stil continue and rather increase than otherwise. The Cure is a work of *great pains* and difficulty, if it be to be attempted in the summer time in regard of a fear we are to have of an inflamation iminent and very nigh at hand; if it be in a moist Climate or country, because the brain is very easily offended by cold and moist things; if it happen at the ful of the moon, by reason of the abundance of humors more at that time than other; if the wound be very nigh unto the brain; if it be in the fore part of the head, and the middle of the brain, because that the brain being a neer neighbor hereunto is more arcuated or arched, and there is not fit passage left for the efflux of the filth and corruption; if it chance to be in the Temples, because the muscles of the temples do abound with arteries, veins, and sinues, or nerves, and so by this means the motion of the lower Jaw is much prejudiced and hurt, if it be in the sutures, both because that there the skul is weak, and because likewise that there the *dura mater* is knit unto the fibres; and lastly, if it happen with a contusion, in regard that the sayd contusion causeth very many, and those likewise hidden mischeifs and Evils. Touching the *ordinance* and institution of the *cure*, (if at least, there be any hope thereof) these things are to be observed, I. That the patient is to be *evacuated* or emptyed; because that in Plethorick and ful bodies even those wounds that are in themselves but slight and very inconsiderable do yet by reason of the abundant humidity attract and draw together many dangerous symptomes; insomuch that unto the milder and gentler sort of medicaments stronger may and ought to be added, and cheifly such as purge choller and the thin wheyish part of the blood; we ought likewise to institute and appoint venesection or opening of a veine; and clysters are also to be apliced. II. Those things that alter choler, and the serous humors, and do withal hinder the motion of hot humors unto the head, are cheifly and mainly profitable in this case. III. If the skin be wounded, and yet the orifice not wide enough, it is then to be more and wider opened, until that the whole fissure or cleft appear manifestly unto the view of him that searcheth it. But then indeed a Section or opening of the *Pericranium* ought to be attempted, when there is any suspition that the Skul is hurt. That kind of Section that is (in regard of its transverse lines) made like unto the figure and fashion of a Cross, is the most fit and proper in this case. IV. The Muscles of the Temples, (by reason of their Nervosity or Sinewines) ought very carefully to be avoyded in the aforesaid Section; and so likewise are the sutures, by reason of the transverse passage of the Fibres. V. In the wound of the Forehead, we must take heed that the Section be not made transverse: for if the Muscle that lifteth up the Eye-lid should by this means be cut, the Eye-Lid then Unavoydably falleth down. And therefore the Section ought to be made from some inferior part, and so upwards, &c.

The *Differences* of the Fracture of the Brain are five in number.

I. A *Fissure*, or cleft, from some heavy and bruising weapon, (in a harder bone) and that such as is very evident and conspicuous, inconspicuous, Capillary or hayry, short, Long, strait, Crooked, &c.

II. A *Contusion*, or collision, of which there are two Species. *One*, when only the Skul yieldeth and falleth down upon it. *Another*, when the Skul is only depressed, and acquireth and maketh a little pit, in a soft bone.

III. A *Depression*, when the bone is cloven, and so giveth back, and retreateth.

IV. That which we cal *Sedes*, when the skul is hurt by a sharp and keen weapon, insomuch that the print and mark of the Edg of the weapon laid violently upon it, is manifest and conspicuous. And hitherto also belongeth that *Species*, which they term *dedolation*, that is to say, a kind of hewing or squaring.

V. A *Contrafissure*, or *Xymphory*, which hath in it three several kinds. 1. When the place that is cloven, and that likewise that is smitten, are both of them in one and the same bone. 2. *When* the exterior part of the same bone being smitten, it (notwithstanding) remayning whol and sound, the interior part thereof is cloven and gapeth. 3. *When* a bone that is smitten by the cloven bone is disterminated by a suture. Concerning al which consult the Practitioners in Physick, and especially in the first place see the Golden Book of *Jacobus Berengarius Carpensis*, *Touching* the *Fracture* of the *Cranium* or Skul, printed and published lately at *Lyons*.

Article, III. *Of the Fracture of the Skul, together with the hurting of the Meninges.*

The Fracture of the Skul, together with the hurt of the Meninges, is two-fold.

For, either the *dura Meninx* is at least hurt together with the Skul; and *then* the blood flows forth abundantly in regard that there are many Vessels Scattered and running along throughout this *Meninx*; and likewise a sore and grievous pain in the Membranons part greatly afflicteth the Patient. In the *Cure*, (in the least not neglecting those things that respect the wound of the skul) the blood is first of al to be stanched. Then the pain is to be mitigated and asswaged with the Oyl of Roses a little warm. If it begin to grow purulent, it is then forthwith to be cleansed with honey of of Roses. If this effect not the cure, we must then have recourse unto those Medicaments that are far stronger, such as the *Unguent Ægyptiack*, &c.

Or else, the *Pia mater*, or the thin Membrane, is likewise together affected. And then an extraordinary efflux of blood, and withal an inflamation is to be feared. For the Cure hereof, See *Johan Hildanum Aquapendentem*, in the Second Book and twentyeth Chapter of his Chirurgery.

Title, II. *Of the Symptomes of the Brain.*

Chap. 1. *Of the Symptomes of the External Senses.*

THe Symptomes of the Brain do infest and disturb, *either* the sense of touching, *or* the common sense, *or* the imagination, *or* the imagination and the Ratiocination together; *or else* more than one of the internal senses, *or* the Animal motion, *or* the senses internal, external, motion, and the discoursive or Ratiocinative faculty, *or else* many of the actions of the Animal faculty al together; *or else* lastly, the excretion and retention. The *Pain* of the *head* appertaineth unto the first of these.

A Single Article, *Of the distemper* Cephalalgia, *Or, the pain of the Head so called.*

The Cephalalgy is a disturbance and corruption of the touch in the Membranous parts of the Head, made and caused by the solution of continuity.

The *Subject* hereof is the Head, according to its Membranous parts, the Skin, and *Pericranium*, covered with Nerves and Membranes, and the very substance it self of the brain not excluded.

There is no need of signes; for it is sufficiently known by the relation of the Patient.

The CAUSE is, whatsoever any manner of way causeth a violent solution of Unity, whether it do this secretly and undiscernably, or else more manifestly and openly: whether this be any thing that is *External*, as for instance, al sorts of pulse in general, and particularly

cularly that which we cal *Ervum*, the drinking of milk, the nuts of Palm trees, and the acorns of the Oak tree, the ſeed of the willow, and the black olive tree, and laſtly, any ſtinking and offenſive ſmels, &c. or whether it be *Internal* and inward; touching which conſult and weigh wel the various differences.

There is here *Good hope* of a *cure*, if there appear on the fourth day good and promiſing Signs: if *pus*, to wit, ſnot or filth, or water flow forth by the noſtrils, ears or eyes. But is ſomewhat *doubtful*, if there be preſent with it an acute feaver, and that the urin be white, becauſe then the choler is carried upwards, and an inflamation is greatly to be feared; if the Patient vomit up that which is Eruginous, or in color like unto braſs; and that the Party be over long kept awake, and deprived of his reſt (eſpecially if a deafneſs accompany it) in regard that by reaſon of the choler that is gotten together, they ſuddenly fal into a violent and vehement madneſs; if they be ſurpriſed with a Congelation or taking (as we cal it) together with a ſtoppage of the belly a fierce and wild countinance, and that the face be extraordinarily red and fiery becauſe then they are ſuddenly ſurpriſed with a crick in the neck (that affect which we uſually terme *opiſthotonos*) if likewiſe there happen together with it a ſound or ringing in the ears without a Feaver, if there accompony it a *vertigo* or giddineſs in the head, a hoarſneſs of the voice, and a benummedneſs in the hands; for then they ſudenly become either appoplectical, or Epileptical, an Apoplexy, and Epilepſie or falling ſickneſs moſt commonly folowing thereupon. But there is no hope at al (or if any very little) if where [illegible] was very vehement, it ſuddenly vanniſh away and conceal it ſelfe, there following no alleviation by the *criſis*; if the extream parts become exceeding cold, becauſe that the native heat being drawn back, a Phlegmon may eaſily be excited; if it happen to be with an acute feaver and that on the fourth day there appear ſome pernitious ſign or other; if a ſound perſon ſo ſoon as he is ſurpriſed and taken herewith, become inſtantly ſpeechleſs, and ſnort, and yet is not afflicted with any ſtrong feaver, whereby probably he might be freed from the aforeſaid diſtemper. The Cure (if there be any) is performed. I. By *mettigation of the pain*, either by anodines (of river *craw-fiſh* beaten wel together with roſe vinegar, *vervain* water, and the root thereof wel bruiſed and impoſed on the part affected, the *Allabaſtrine* unguent before mentioned; al wch ought to be applied unto the ſutures and temples: or elſe by *narcotick* remedies, which may only be applied unto the forehead, and layd thereon. II. It is to be accompliſhed by *removal* of the *Cauſes*, and *ſtrengthening* the *part*, touching which ſee further in the differences.

The *Differnces* of the *Cephalalgy* are many, and thoſe very various.

I. One difference hereof is ſymptomatical, of which we here treat. Another is *Critical*, which beginneth not to afflict the patient from the firſt riſe of the diſtemper, but much about the time of the *Criſis*: and *then* the breathing ſuddenly becometh ſhort and very difficult, the *Hypocondria* being drawn back; the veins are ſwoln, and the arteries beat in the Tempels; the cheeks wax red, and tears flow forth of their accord, the patient not being able to withſtand it; the ſick party ſtreacheth his noſtrils with his hands, and then moſt commonly there floweth a ſtreaming forth of the blood.

II. Another is *External*, which ſeizeth the *pericranium*, is perceived in the very ſuperficies, reacheth unto the roots of the eyelids, is exaſperated by the compreſſion of the hairs and hands. Another *internal*, which becomes eaſy and moderate upon the very touch, eſpecially if it be without any diſtention; and it extendeth it ſelf even unto the roots of the eyes.

III. Another is from *Cauſes External*, to wit, 1. *Ebriety* with beer in which the herb *Chamæpence* is boiled, eaſily and ſoon cauſeth. And *then* the *matter* fluctuating in the ſtomach is to be caſt forth thence by *vomit*. The leaves either of the *Colewort* or *Cabbage*, throughly moiſtened in warme water, or elſe the leaves of *Rue* wel bruſed together with roſe vinegar, are to be applied. The head is to be al over wet and beſprinkled with the ſpirit of wine, and the feet are chafed and rubbed with ſalt and vinegar. 2. By a *Contuſion*, ſtroke, wound; in which caſe the cure is to be ſought for above in and from their proper places. 3. By the heat of the ſun, the heat of a Bath, and of the ſoutherly winds: And *then* the head is to be delt withal by cooling fomentations, &c. 4. By the uſe of *other things* offenſive, ſuch as are dates, walnuts, cheſtnuts, Filbirds, toad-ſtools, hempſeed, the ſeeds of Coriander not prepared, Frankinſence, ſtyrax and Mirh if moderatly taken, &c.

Another is from *Internal* cauſes, to wit, 1.

From a *distemper* without matter, which if it be *hot*, the pain is vehement, and the head becommeth hot: if it be cold the pain lasteth so much the longer, and the head is cold. In this case the little rols or cakes of *diamoscum dulce*, and a little bag of heating Cephalicks are very convenient. If it be *dry*, the pain is moderate, dul, and not acute, and there went before causes that were extreamly efficating and drying. 2. From a *distemper with matter*, which is either from *blood*; and then the paine is more gentle and moderate, which cheifly seizeth the fore part of the head, and increaseth before the time of repast. The *Cure* is to be sought in its due and proper places. Or else it hath its original from *yellow choler*, and then the pain is extreamly pricking and corroding, and for the most part fasteneth upon, and seizeth the right side of the fore part of the head. In the *cure*, those things that are most fit and likely to effect it, are Epithems of *Opiat Laudanum*, with rose water, vesicatories applied unto the neck, the smelling of rose water with Camphire, washing of the head with a *decoction of agarick*, together with the flowers of camomil, scarification of the lips, of the ears, &c. or else it procedeth from flegm; and then a pain afflicteth the patient on the right side of the hinder part of the head, rather then else where. Medicaments good and successful against this malady, are, *oxymel* with *squils*, the water of the flowers of the *elder tree*, of *penyroyal*, of *rosmary*, with cristal of nitre; the shels of *peaches* beaten together with verveyn water; the oyl of *nutmeg* pressed or drawn forth, the Balsam against the *Apoplexy*, that of *yellow amber*, and the sacculus or little bag of *Hartmannus*. Or else it ariseth from blak choller or *melancholly*; and then the watchings are very extream greivous, together with a pain of the left side of the hinder part of the head. Let the cure be sought for in its proper place. 3. from a *wind*, and then the pain wandereth (as it were) and fly eth up and downe, hither and thither, it puffeth out and extendeth the part where it is, often returning and running back again at some certain constant hours of the day. It is *discussed* & scattered, if so be that the temples and the coronal future be frequently anoynted and chafed with garlick throughly bruised, and then mixt together with wine vinegar, or the Urin of an Infant.

III. there is Another *Cephalalgy*, that is, such in its own *essence*, (we term it primary) which now and then ariseth likewise from *worms*, with a certain kind of gnawing, and an itching of the nostrills; and this comprehendeth under it al the fore-mentioned differences. Another there is *by the consent* of the Heart, (as in feavers) of the hypochondria, the stomach, the wombe, &c. and this for the most part is *hemicrania*, and affecting only the one half of the head; see the first Title of the second Chap. of this Book.

IIII. Another *Cephalalgy* there is peculiarly and *specifically, so called* which indeed is nothing else than a *pain* that as it is *new*, so it is also very *light* and gentle, *and* such as is *most easily removed, without any great imbicillity* and weakness; having its original (most usually) from causes external, likewise it is accompanyed with a Feaver.

V. Another is that we terme *Cephalæa*, or, *a long continued contumacious pain, Infesting and annoying with the greatest paroxysmes* (and yet notwithstanding, *such as are stirred up even by the smallest* and most inconsiderable *causes*) *the whole brain, and head, or at least*, to be sure, *the greatest part thereof, but most especially the Membrains*. Another called *Hemicranio*, which is a painful distemper of one half part of the head only, which ariseth from those parts that are situated beneath it. In that that proceedeth from *the stomach*, there is usually perscribed (as most profitable) for evacuation the *Pils* of *Fernelius*, formed of the best Aloes half an ounce, the powder of the Electuary of precious stones, or *de Gemmis*, of the three saunders (called in the shopps *Diatrion santalon*) and red Roses, of each of these six Grains; and so made up (to the number of thirty) with the Syrup of Wormwood and violets; and then two or three of them are to be swallowed down the tenth hour before supper. Unto the Head there may be applied and laid on an Epithem of the green *Root* of the *Wild Cucumber*, boyled together with Vervein and Wormwood of *Pontus*, in Oyl and water.

Chap. 2. *Touching the Symptomes of the Common Sense.*

Article, I. *Of over great and extraordinary watchings.*

THose Symptomes that infest and invade the common sense, are watchings, and a drowsie and *sleepy distemper*, called *Coma*.

Watchings preternatural are, the exercise of [illegible] *sense, and the exter-*

nal (likewiſe) beyond a due and fit meaſure; ariſing from the continual uninterrupted influx of the ſpirits into the Organs.

There is no need at al of SIGNS, For the relation of the ſick wil ſuffice.

The CAUSE is expreſſed in the definition. But the *Spirits flow in*, becauſe they can by no means be brought to reſt and ſleep; and that either in regard of externals, to wit, objects (overmuch light, cares, Cogitations or thoughtfulneſs) or elſe by reaſon of ſomwhat internal, to wit, a hot diſtemper of the brain, a pain, &c. the *cure* is *difficult*, if the ſaid watchings happen unto thoſe that are young, and not at al accuſtomed thereunto; if they bring on the party a doting, or a Convulſion, or a cough; if they laſt long; if they have their Original from internal cauſes. The Cure *conſiſts*, I. In *Removing* of the *Cauſes* that occation and produce thoſe watchings. II. In *Procuring ſleep*, either by cooling Cephalicks outwardly applyed, or inwardly given, or elſe by Narcoticks. The Fat of the *Fiſh Lucins* (that is, the Pike) annoynted upon the Temples, the *Hypnotick* Wine of *Mynſichtnus*, the Soporiferous Compound of *Saxony*, the Liquor of the *ſmal ſpungy ſprigs* of *Eglantine*, preſſed out of them after they are come to a maturity, *Opium* corrected with Saffron, the magiſtery of Corals, and the ſpirit of Vitriol, a pultiſe of *Poppy ſeeds* with the *Oyl* of *Hen-bane*, and the breaſt milk of a woman, applied to the pulſes, and the *Pediluvium* (or Lotion to waſh the Feet) of *Hartmannus*; &c. al theſe are excellent for the purpoſe aforeſaid.

The *Difference* is taken from the Cauſes.

Some of them are from *External Cauſes*, to wit, 1. The paſſions and affections of the minde, Fear, Grief, Cares, Cuſtome; (and then theſe things are to be removed) [illegible] becauſe they are wont to occaſion the diſtemper of the head, we ought to withſtand and prevent the increaſe and growth of the Humors. 2. They proceed from the objects of the external ſenſes, which are to be rejected. The annoynting of the Noſtrils with *Oyl* of *Nenuphar* or the water Lily, and the eating of Lettice, is here in this caſe much commended.

Others there are from *Internal* cauſes, to wit, 1. From a *hot* and *dry diſtemper*, either without a Feaver, which diſturbs and drives to and fro the ſpirits, and diſſipates the vapors; (The cure of this may be ſought out in its own proper place:) 2. *From hot Vapors*, that are ſharp & ſalt, which diſturb and trouble the ſpirits by their pricking and twinging the Membranes of the brain. Theſe, *either* they are elevated by ſome Apoſtem of the Head, and that *either* from the whol Head, *or* from ſome certain parts thereof; and this likewiſe *either* without a Feaver, *or* with a Feaver. The Signs and the Cure ought to be ſought for out of their own Chapters: Thoſe Medicaments that qualifie, ſweetly allay and temper the Vapors, are to be exhibited after ſupper. 3. *From the defect of Vapors that might cauſe reſt and quiet unto the ſpirits*; in regard either that they are not al generated, (as it happeneth after an overlong abſtinence from food, and by reaſon of crudities in the ſtomach, and *then* in this caſe, in the Cure, a ſpecial regard is to be had unto the Diet) *or elſe* it is, becauſe that theſe Vapors, ſo ſoon as they are generated, they are forthwith diſſipated and ſcattered; like as it chanceth in an hot diſtemper: and *then* a regard alſo is to be had unto the ſame. 4. From *Pain*, in which when once the common ſenſe is together affected, it being vehemently and violently moved, al the other ſenſes moved and diſturbed together with it. And hitherto apperteyneth a Cough, the flux and extraordinary looſneſs of the Belly, &c. which deprive a Man of his ſleep.

Article, II. *Of the ſleepy and drowſie Coma, or Cataphora.*

The ſomnolent or ſleepy Coma is a deep and profound kind of drowſineſs, ariſing from hence, to wit, that the Senſus Communis, or *Common ſenſe, is become ſo dul, ſluggiſh, and ſtupid, that it permits not the Animal ſpirits to be diffuſed unto the external ſenſes, neither doth it know, or is able to Judg of thoſe objects that it receiveth from them.*

The SIGNS are taken from this, to wit, that the ſick party ſleepeth for the moſt part with his lower Jaw-bone hanging down, and with his Mouth gaping and wide open; when he is rouzed and ſtird up he openeth his Eyes, and anſwereth, but immediatly again falleth aſleep. And ſo it is diſtinguiſhed from the ſad diſtemper *Carus*, from the the Apoplexy, and the ſuffocation of the Womb.

The CAUSE is, whatſoever impedes or hinders and prohibites the influx of the Animal ſpirits unto the Organs of the ſenſes, and withal Renders thoſe ſpirits more unapt unto the Animal actions and operations.

The CURE is *Doubtful*, if it follow upon

upon the extream imbecillity of the Patients ſtrength, occaſioned either from ſome moſt acute Diſeaſe, or elſe from ſome deplorable and grievous affect of the brain; if it chance in continual Feavers; if it hath its original from ſome malignant cauſe. There is *almoſt no Cure* to be expected, if it take its riſe from hot and dry Diſeaſes; for then by this means of neceſſity there muſt needs be an extraordinary cooling in the brain; if the malady grow to be ſo ſad and grievous, that both the ſenſe, motion, and the very breathing it ſelf is taken away. In what things the Cure cheifly conſiſteth, and by what means it is to be worught, ſee further in the various differences thereof.

It is *divided* according to the variety and difference of the Cauſes.

I. There is one *Species* thereof, that ariſeth from the *Humidity*, or the *frigidity* of the *Brain*, And *then* the matter in the Head ought to be Evacuated and diſcuſſed, in the former of them, by the irrigation or the frequent waſhing of the Head with the *ſharpeſt ſort* of *Vinegar* throughly mixed together with Roſes and *Camomil Flowers*; but in the latter of them, by anoynting the Head with Dil Oyl a little warmed. And in both of them we muſt remember to put in practiſe the frequent uſe of Apophlegmatiſmes, Errhines, and ſternutatories. Another kind thereof there is from *Narcotick Vapors*, inducing and bringing in a certain dulneſs (and unaptneſs for any thing) upon the Animal ſpirits; which ſaid Vapors *either* are from over much drink; (and *then*, the drink yet remayning in the ſtomach, Vomiting is to be excited and provoked) Or, for the greateſt part they are conjoyned with Feavers. *Then*, 1. The Vapors are to be drawn back, either by opening a Vein in the Thighs, or by Clyſters, frictions, Cupping-Glaſſes, &c. 2. The ſame Vapors are likewiſe to be repelled and driven back by *Oxyrrhodines* (to wit, Medicaments conſiſting of Vinegar and Roſes) actually hot, and applyed to the Coronal ſuture; unto which former remedy let the Vinegar that is added, be in a plentiful meaſure; *or elſe*, which is yet better, they are to be diſcuſſed with Rue, Caſtoreum, Vinegar, &c. 3. Great caution muſt be had leſt that thoſe Remedies that are exhibited and adminiſtred to expel ſleep and drowſineſs, ſhould any way augment the Feaver. Or otherwiſe, theſe Vapors afflict without thoſe feavers. And *then* they are elevated and drawn up from the ſtomach, Womb, or ſome other inferior part. Theſe are to be taken away by the very ſame remedies as the former were. Thoſe things, that infringe & weaken the ſtrength of *Narcoticks*, are, *Rew with Vinegar*, the balſam of *Rice*, *Caſtoreum*, *Nightſhade*, ſnuffing up the fume of *Brimſtone*, &c. As for the Diet, what it ſhould be, ſee and conſult the Practitioners.

Chap. 3. *Of the Symptomes of the Imagination.*

A Single Article, *of the Vertigo, or turning round of the Head.*

THat Symptome of the Imagination which likewiſe very often hurts even the common ſenſe alſo, is called *Vertigo*, *which is nothing elſe, than a falſe imagination of ones turning round & dizzy reeling about; ariſing from an inordinat and circular motion of the Animal ſpirit in the Forepart of the brain.*

The SUBJECT hereof *is*, the brain, according to its anterior, or forepart, as it is an organical part, as it containeth the Animal ſpirits, and as it is endued with certain paſſages in which the ſaid ſpirits are moved.

Of SIGNS there is no need at al. Unto ſome of them al things ſeem to be turned about as in a Ring or Circle; others of them have their very ſight obſcured; and again in ſome of them there is ſenſibly perceived a ſiſſling Noiſe, and as it were a kind of ſinging in the Ears, &c.

The CAUSE is whatever either ſuppeditateth and generateth Vapors of themſelves, and in their own Nature, ſuch as are garden Radiſhes, Garlick, Muſtard, Wine, &c. Or elſe, [illegible] as is wont to ſtir, diſturb, and agitate the Humors; and hitherto appertaineth putgation, as being cheifly requiſite in this caſe.

The CURE is very doubtful, and ſcarcely to be hoped, if this diſtemper happen to Old people, becauſe they have but a weak brain; if it continue long, becauſe it is then the forerunner, and indeed the foreteller likewiſe of the Epilepſie, or the Apoplexy, if in it the Head or the whol body ſeem to wheel and turn round. The Cure is *Performed*, I. By *Diſcuſſion*, and then let the holes of the Noſtrils be annoynted with the Oyl of *Marjoram*, and the Oyl of Nutmeg; or elſe together with the aforeſaid, let Roſe water and Vinegar be put and applied thereunto: let the Temples,

and

and the hand-wrists be anoynted with rose vinegar, and Rose water, mingled with a drop or two of the Oyl of *Cinnamon*; or else let them be throughly wet and besmeared with the Juyce of the black beet: let the pallate be annoynted with Treacle. II. *By opening a Vein*, if it be over powerful and violent. III. by *Revulsion*, if it proceed from the inferior parts. IV. by a Diet, in the which meats that are known to generate many Vapors, beer brewed with much Hopps, and such like hurtful things, are carefully to be avoyded. For a preservative, Caraway seed macerated in Wine, dryed, and dayly taken about the time of going to bed, is held to be very excellent.

The *Differences* are taken from the Causes.

I. One is from *Causes* that are *Evident*, exagitating and exasperating the spirits; and such are a turning round of the whol body a long while together, looking much and steadily upon things while they are moved circularly, and a prospect or looking downward to the earth from a place of an extraordinary heigth. For so by this means the spirits (by the beholding and looking upon any thing unto which it is not accustomed, or that is dreadful and terrible) are diffused and drawn back. It is *known* by the relation of the sick party. It is cured by rest and sleep. If it yet be not altogether ceased, then we are to conclude the Cure by frictions. If it be from *Hunger* and fasting, a piece of bread dipt in the Juyce of *Pomegranates*, or in sharp sowr wine, is first of al to be administred.

II. Another is from the narrowness or *Streightness of the Passage of the Brain*, through which indeed the Animal spirits are moved; but when they are thus impeded and hindered, they then retreat back again. It *ariseth* either from a partial obstruction, which if it be caused by gross and thick Vapors, it is soon dissolved; if it hath its rise from serous and Phlegmatick Humors; it is then of a long continuance, and there is withal present a sense of fluctuation. In the Cure there ought to be a respect had unto the Nature of the Cause. Or *else* it proceedeth from the compression of the brain, and the fracture of the skul; of which see further in their own propper places: Or *else*, it is from the *Coalescence* or knitting together of the Arteries, from their first rise, and their entering into the scalp or Skul, by that general and common passage through the brain, touching which there is hardly any thing to be certainly determined, while the Patient liveth.

III. Another is from a Vapor ful of windiness, generated and bred in the brain, which by an inordinate motion being poured forth into the Veins and Arteries, doth so trouble and disturb the Animal spirits by driving to and fro, that they thus become to be circularly moved and turned round, and then they exhibite and represent unto the common sense or Phantasie this falf and feigned species and appearance of things, otherwise than indeed they really are. It is *known* by that vehement pain, and dul heavines of the head, a long continued tinging and hissing Noise in the Ears, and a certain kind of hurt and detriment of the external senses. This Evil or Malady is very frequent, and such as surpriseth a man upon a very smal and light occasion; and yet it lasteth, and (as we use to say) sticketh long by him. It *ariseth* from causes that generate and breed winds and windiness, and more especially if the wonted Evacuation be suppressed. It is *Cured, either* in the Paroxysm, (of which we have before spoken) *or*, out of the Paroxyim; 1. By the *Evacuation* of the *Matter* that fomenteth and supplieth these Vapors; and that as wel a general as a particuliar one. Some there are that are afraid to prescribe, and there are others again as fearful to take those Medicaments that Practioners term *Errhines*, which are to be taken up into the Head by the Nostrils, to open and purge the brain. 2. by *Revulsion* or drawing back of the said matter, as also by *Derivation*, and *Discussion* of the same, by Vesicatories, Cauteries, frictions and lotions of the Head. 3. By *Corroborating* and strengthening the *Brain*, both by external and internal Remedies. Among the specifical and Appropriate Medicaments, those that deserve the greatest commendation, are, the *dung* of the *Peacock* (one dram thereof by weight) macerated in Wine, strained, and so drunk up; the extract of *Scorzonera*, the Roots of *Doronicum* (an excellent drug brought out of *Mauritania*) eaten, *Bears Ear*, the fat of *Does*, and land *Snakes*, by annoynting the Temples therewithal; the pouder of *Silk-worms dryed* and strowed upon the Crown of the Head. Very effectual likewise for this purpose, are, the spirits of *Rosemary*, the Chymical Oyl of *Yellow Amber*, *Hippocrates* his *Treacle*, the pouder of the *Right mineral Cinnabar*, half an ounce thereof: *Margarites prepared*, and *red Corals prepared, of each two scruples*; *Saffron one scruple*; and then add to the aforesaid ingredients

ingredients the *leaves of Gold, in number ten,* and ſo let it be adminiſtred (the doſe is one ſcruple) in the water of lillies of the Valley; and laſtly, the electuary of *Saxony*. It is *divided* into that which is from extream *hot blood*; and *then* there is preſent a redneſs of the Face, and a beating of the Arteries. In the *Cure*, eſpecial regard is to be had unto the opening of a Vein, and that cheifly and primarily, of the Baſilike, if a Plethory accompany the diſtemper; and then preſently after, of the Cephalick or head vein, if the peccant matter abound moſt, or only in the head. It is not to be drawn forth al at once, but by many Eſſaies, at ſeveral times, by intervals. We ought not to be over raſh in attemping the cutting or opening of an Artery: and into that, *that is from a pituitous* or Flegmy Humor. *Then*, the place where we have treated of the Flegmatick diſtemper is to be conſulted. An Evacuation (after that a Clyſter hath firſt of al been adminiſtred) may very conveniently and ſucceſsfully be expedited by the extract of the *Pils* called *Cochiæ*, from half a ſcruple to a ſcruple; by a *Lixivium*, and a Ballam: See further hereof in *Agricola*, in his firſt Book, 38. Chap.

IV. Another there is from an extream *windy Vapor*, elevated from other parts. It is *known* by this, that there went before it no hurt or annoyance of the [illegible]s, and that the diſtemper afflicteth the pa[illegible] frequently, and by fits; and withal there are preſent the ſigns of the part affected. It ariſeth either from the *ſtomach*, either pirrocholick or ful of bitter choler, or Pituitous and Flegmatick, or elſe by reaſon of its imbecillity corrupting al the food that comes within it: and then the *Cure* muſt cheifly reſpect, and be directed unto the ſtomach. And here take place (as moſt requiſit and proper) a *grain* or two of *Frankincenſe* taken after meals, the confection of *Fennel*, of *Coriander*, Sugar of *Prunella*, *Saccharum Roſatum* or Sugar of Roſes, the electuary of the Conſerve of old red Roſes, *Diacydonium* ſimplex, that is an electuary of the conſerve of Quinces, the ſpirit of vitriol, and the Syrup of mints. For what remayneth to be done in this Cure, ſee more in the diſeaſes of the ſtomach. Or elſe it ariſeth *from the Liver, Spleen, Womb, whol Body*, as it uſually happeneth in Feavers: and then in this caſe there ought to be an eſpecial Care and regard had unto the Nature and condition of the parts affected, and the Various Symptomes.

Chap. 4. *Of the Symptomes of the Imagination and the Ratiocination, when they are hurt.*

THe ſymptoms hurting the imagination and the Ratiocination or rational faculty, are, the *hurt of the Memory, dotage, a Phrenſie, Melancholy, madneß*, and *Raging* or raving, which we term *Hydrophobia*.

Article, I. *Of the hurt of the Memory.*

The hurting of the Memory, is a diminution or utter abolition of the ſame, ariſing from Cauſes that hurt the dryneß of the Brain conjoyned with a moderate heat, (and very neceſſary as to the meomry) and ſo by means rendring the Animal ſpirits, either torpid, that is over dul and ſluggiſh; or elſe (which is as bad) inordinately moveable.

There is no need of SIGNS; for the very actions of the ſick party diſcover the Symptomes.

The CAUSES that hurt the temperament of the brain (that is abſolutely neceſſary for the preſervation of the memory) either they *weaken* and *diminiſh the Native heat*, and that likewiſe either *Externally*, as do al things of a Poyſonous Nature; al Narcoticks applied to the fore part, and likewiſe the hinder part of the Neck: or elſe *Internally*, as doth a temperament cold, and moiſt, which either affecteth Children and ancient people, by reaſon of their Age; or elſe it afflicteth others, by reaſon of meat and drink that is of a cold and moiſt Nature, or by reaſon of a Groſs and thick Air, ſickneſſes, and other Cauſes, (of which we have already ſufficently ſpoken in the cold diſtemper) Or otherwiſe, they *diſſolve* the ſaid *Natural heat*; ſuch as are, externally, al Philtra or amorous potions, watchings, exceſſive thoughtfulneſs, Medicaments, that are hot of quality; *Internally*, hot Diſeaſes, impoſtums of the Brain, abundance of Yellow Choler, &c. Or elſe they *exalt the ſame*, ſuch as are hot and dry temperaments, that cauſe an inordinate motion of the Animal ſpiritts. Or elſe laſtly, They *impede and hinder the motion of the Animal ſpirits*; and ſuch are, a leſs (than is requiſite) conformity of the head and brain, the over great thickneſs of the ſame, &c.

The CURE reſpects the ſeveral Cauſes, and may be taken and underſtood, by what hath

hath been already above ſpoken. Thoſe medicaments that are *appropriated*, either for the conſervation or reſtoration of the memory, are reputed and accounted to be that they term *Tinctura lunæ*, taken in the water of lilies of the vally; The *pouder* of *Trithemius*, (of which there is ſufficiently ſpoken in the miracles of *Mullerus*) the *Anacardine Confection*, in weight half a dram thereof exhibited and taken with al poſſible cautions unleſs haply an hot and dry temperament hinder it. Thoſe things that reſiſt, and therfore are good againſt a cold and moiſt diſtemper, are, that water that Practitioners cal *Aqua Magnanimitatis* Cunradi. The *lily of the vallys*, *balm frankinſence*, in weight half a ſcruple, taken with wine, Nutmeg, &c. Toughing which conſult the practitioners in Phyſick.

Article. II. *Delirium, or dotage.*

A *deliry* or dotage is a depravation of the Phantaſie, and the ratiocination Faculty, ariſing from the bringing and preſenting of an abſurd and inconvenient Phantaſme.

The SIGNES of a *delirium*, *beginning*, are garrulity or talkativeneſs in a perſon of few words, and ſo on the contrary; fierceneſs in a quiet and mild perſon; ribaldry and ſcurilous ſpeech, the quick motion of the eyes, in regard that they are aſſociated with the brain, Arteries, veins, and nerves; a pulſe with perturbation in the *Hypocondria*. But the ſigns of that that is *preſent*, are ſpeeches and actions that the patient hath been altogether unaccuſtomed unto, and which in themſelves are indeed very abſurd and incongruous.

The CAUSE hereof is an abſurd Phantaſme having its riſe and original from a default in the Animal ſpirits, (as wel thoſe that are fixed, as thoſe that are movable) which ought to be pure, clear and tranſparent, temperate, and regularly and ordinatly movable: For if they twerve from thoſe aforeſaid requiſites, there is then an error and miſtake communicable unto the Phantaſmes (about and upon which the Reaſon is employed and buſied, and then thoſe Phantaſms are repreſented unto the intellect or underſtanding) otherwiſe than they ought to be.

The CURE is different according to the variety of the differences.

It is *divided* into a dotage that we cal *primary*, and that which we cal ſympathetical.

I. The Primary is that, when the brain is in its one proper ſubſtance and eſſence (that is, in it ſelfe) affected, and this is either *with a feaver*, (of which more in the Chapter following) or elſe, *without a feaver*, containing under it, *as wel* that wherein *Paraphora* and *Leron*, (that is to ſay, an error of the mind, or a dotage and buſying of it about toies and trifles, proceeding from the imbycillicy of the principal factulty, by reaſon of an immoderate flux of blood, or elſe by reaſon of long continued watchings) as *that* we term downright folly, in the which the principal faculties are not only impared, and diminiſhed, but likewiſe extreamly depraved, and corrupted.

II. That which is *ſympathetical*, when the Cauſe is communicated from other parts. It is *diſpoſed* and divided into that which is *without a feaver*, (which comprehendeth under it *temulency*, or a kind of drunkeneſs and diſtemper brought upon the ſpirits, either by wine, or beer; or elſe from *hemp*, *darnel*, *henbain*, the dry *ſticks* of that they cal *Levantbe*, the rinds of *mandragoras*, *opium*, and the like. Thoſe things that preſerve are the ſmal ſtrings of wormwood and Rew eaten upon an empty ſtomach, the cabbage or colewort, and a morſel of bread eaten after a draught as aforeſaid; thoſe things that *accompliſh the cure*, are, vomits, and the uſe of things Acid, and ſharp &c. (and into that, that is *with a feaver*, which often hapeneth in acute feavers, and not otherwiſe; And *then* the feaver is at hand, and preſently appeareth: if it ſhew it ſelfe in the very begining, without any apparent ſigns of concoction, it introduceth a Phrenſie, which is quallified & in great part removed by ſleep: but if it happen to be with concoction and other hopeful ſigns and tokens, then it is Critical and decretory. It is *cured*. 1. By *revulſion*, by the opening of a vein in the feet and other ſuch like remedies. 2. by tempering and allaying the extraordinary heat of the blood in the head, by topical or local medicaments. 3. By the application of *hypnoticks*, or medicaments cauſſing ſleep. 4. both by the evacuation of the *matter* which hath already ſeized the head (and this is to be done by openinin g either the forehead, or the tongue vein) and likwiſe by the *diſcuſſion* of the ſaid matter, by applying unto the head pidgons diſſected and cut in midſt and withal the decoction of Camomile, &c. Or elſe it happeneth *in an inflamation* of the parts, and eſpecially the diaphragme. And *then* the breathing is unequal; the Hypocon-

dria are violently drawn back more inwardly; there is likewise Joyned therewith a deliry or dotage, together with a Cough, and a pain of the side, The *Cure* ought to proceed according to the Nature and condition of the part affected.

Article, III. *Of a Phrensie.*

A Phrensie is a perpetual and Continual deliry or dotage, arising from the Inflamation of the Membranes of the brain, and afflicting the Patient with a continued Feaver.

The SIGNS are, a perpetual doting, a continual Feaver, inceſſant watchings, and ſhort and frequent drawing of the breathe.

The CAUSE is an inflamation of the Membranes of the Brain; of the which we have already above treated in this very Book.

The CURE ought to be ordained according to the Diſeaſe, the Nature of the watchings, and the ſuppreſſion of the Urine. *In this diſtemper, Veneſection* or blood-letting is one eſpecial, if not the only Remedy. But then a plentiful meaſure, or, as we ſay, good ſtore of blood is ſometimes to be drawn forth at the Noſtrils, by putting up a Feather made into the faſhion of a Star, even unto the very Root of them, and forcibly turned about therein. But touching what we are now upon, more may be ſeen in what hath been already delivered concerning the Inflamation of the brain. Neither muſt we forget, (by reaſon of *thoſe* aforeſaid watchings) together with repellers, to mingle Hypnoticks, that cauſe reſt; or elſe they ought to be adminiſtred ſeverally and by themſelves alone, as we ſee good. Three grains of *Opiat Laudanum* cautelouſly adminiſtred in a convenient liquor, (leaſt the Phrenſie ſhould by any means degenerate into that Diſeaſe we cal *Veternus*, that is, the Lethargy, or drouſie diſtemper) are very much commended. *This* ſaid mutation or change is wont to happen, either of its own accord, or elſe becauſe the ſick perſons neglect, & cannot endure to reply unto thoſe that ſpeak unto them; and it is ſoon removed and taken away by the uſe of Emollient Fomentations. In this greif, there have their uſe, that which we term *Luna Potabilis Hartmanni*, ſix drops thereof; and that they cal *Pharmocum Phantaſticum*, of Bartoletus, (the doſe whereof is from one dram to two drams) & laſtly, the ſpirit of *Terra ſigillata*, or the ſealed earth brought from the Iſle *Lemnos*.

Article, IV. *Of Melancholly.*

Melancholy is a dotage ariſing from a Melancholy phantaſme, with the which whoſoever is affected, and deteyned thereunder, he becomes wholly and only addicted to thoughtfulneſs, being as it were altogether ingulphed therein, without either fury or Feaver, but yet without penſiveneſs and fearfulneſs.

The SIGNS are, a deep ſadneſs and fearfulneſs without any apparent cauſe, and then likewiſe another ſign is Taciturnity, and a long continued ſilence, or elſe incongruous diſcourſe, and talk at random, and this more eſpecially of ſome [illegible] thing more than other.

The CAUSE is a Melancholy Phantaſm that proceedeth from an error, vice, and diſtemper of the Animal ſpirits, the which (when as they ought to be clear, thin, ſubtile, and moveable) are hereby rendered and made obſcure and miſty, opacious, thick and dark, as alſo fixed and almoſt wholly immovable. And hence it cometh to paſs, that al kind of objects are imprinted upon their ſeveral ſpecies, according to the condition and quality of the vitiated and depraved diſpoſition of the ſpirits. And they acquire and gain this diſpoſition from a *default in the Brain*, declining from its genuine whitneſs, and generating ſuch like ſpirits as theſe: or elſe they have their original from ſome default in *the matter out of which they are made* and bred, to wit, the blood and the Vital ſpirit: or elſe laſtly, they got this vitious diſpolition from ſome *impure* and melancholy *Matter*, (which is mingled together with the blood and ſpirits) whether it be an Humor, or a vapor, or both.

The CURE is *facil* and Eaſie, if the diſtemper be recent, and but now beginning; for ſo it is cured by diet alone, together with the humectation of the whol body, and ſomtimes of the head in particular; as likewiſe if the Body receive any augmentation and growth from the aforeſaid food; if only the imagination be no more than hurt; and then again, if it be with ſome kind of laughter accompanying it. But Cure there is *none*, if the affect be hereditary. See above further hereof (touching the *Progreſs* to be made in attempting the Cure) in the Chapter of the Melancholly diſtemper of the brain; and below, in the differences. Notwithſtanding, obſerve here. 1. That in this caſe an eſpecial regard is to be had of the diet; and that ſleep by al manner

manner of means be procured, leſt that haply the Patient fal frantick and mad. *Vinegar* is not here to be adminiſtred, but only that by it the dry Vapors may be diverted and called away from the brain. A Bath of ſweet water is by no means to be neglected. 2. That the ſick perſon is to be wrought into an Imagination quite contrary. 3. That now and then for ſome certain time the Patient muſt wholly abſtain from Medicaments. The Remedies that in this caſe are commended, are, *Confection* of *Alkermes*, the *Tincture* and *Extract* of *Lazulus*, *Elixir proprietatis*, the *bezoar ſtone*, *Cachunde*, an Indian Medicament; the deſcription whereof ſee *in Lacutus* his Phyſical Hiſtory, 1. Book, Page, 310.

It is *divided* into ſome certain ſpecies.

I. One is that of the *brain*, when the brain (in the Nature and quality of its ſubſtance) departeth from its natural cleerneſs and purity. It is *known by this*, that the doting is perpetual and vehement; that there are preſent ſigns of Melancholy abounding in the head; that the blood, if it be let out, is not thick, nor black. It *ariſeth Externally*, from a ſtrong Phanſie or imagination, from fear & other ſuch like ſad and grievous affections of the mind. It ariſeth *Internally*, from a Melancholick Humor heaped up in the head; and this, either by reaſon of ſome acquired cold diſtemper of the brain; or elſe in regard of its Melancholly conſtitution, (which may ſoon be known from the affects) or otherwiſe, laſtly, by reaſon of ſome cold and dry matter left behind in the brain, after ſome hot diſtempers there, the heat now abating, and the thinner part of the matter being now reſolved, and gone. It is *Cured*, 1. By the *Alteration and Preparation* of the peccant matter by *Fumary*, the water or ſyrup of ſweet ſmelling Apples, and Tartar of Vitriol. 2. By the *Evacuation* thereof with the *Extract* of *Hellebor* (the inferior waies and paſſages being firſt opened) by Errhines, and Sternutatories. 3. By Procuring reſt and ſleep in the uſe of Hypnoticks. 4. by Corroberating and ſtrengthening the Head, by the Tincture of the *Chryſolite*, and other appropriate Remedies.

II. Another is that of the *whole* Body, when a Melancholy blood aboundeth throughout the whol body, and is from thence tranſmitted unto the brain. It is *known* by this, that the deliry or dotage is indeed continual; but yet ſo, that it is with ſome certain exaſperations, exacerbations, and remiſſions; and likewiſe, in that there are preſent ſigns of Melancholy abounding in the body, and that there went before the Cauſes thereof. It *ariſeth* from its own proper Cauſes, of which we ſhal ſpeak further in the Differences. It is *Cured*, by the frequent repetition of *Veneſection* or blood-letting. But becauſe there are but very few ſpirits in Melancholly perſons; it muſt *not be of too much blood at once*; it may be either in the left Arm, or in the Ankle, or elſe the thigh Veins (if large) may be opened by Leeches. 2. By a *Preparation of the Humor*, by the Syrup of *Odoriferous Apples*, *Fumary* with the cream of Tartar, & Tartur vitriolate, by the fection of *Alkermes*, the Whey of *Milk*, with the Juyce of Cichory and Fumary. 3. By a *gentle Evacuation thereof*, often Reiterated, and corrected by ſuch things as corroborate the ſpirits and the principal parts; and likewiſe by thoſe things that Humectate, moiſten, and mollifie: but then the Evacuation may, and ought to be ſtronger, if ſo be the blood be over thick, and unleſs the body be already extreamly and over much waſted. This Evacuation muſt be ſeconded and followed by Moyſtening Baths, unto the which Emollients are to be added. 4. By drinking of *tart*, ſharp, and ſomwhat ſowr potions, and alſo by the uſe of hot *baths*. 5. By the *ſtrengthening* of the *Head*, both by internals and externals, among which *Embrochations* are highly, and indeed cheifly commended. 6. By a *Diet*, in the which there ought to be a careful and continual abſtinence from al ſorts of pulſe. It is *divided*, according to the Nature and diverſity of the Cauſes. 1. One is from Cauſes altogether *external*, as Fear, watchings, Cares, al which exſiccate and dry up the Radical Moiſture, have in them a power ſufficient to alter and change the blood in the whol Body, and to detain the Melancholy Humor. Now then, in this caſe, *Veneſettion* is not reputed to have any place at al. Another there is *from internals*, to wit, either an hereditary conſtitution (which indeed ought not over haſtily and raſhly to be tampered withal) or elſe, from either a cold and dry, or a hot and dry conſtitution and diſpoſition of the Liver and ſpleen; in the which upon the ceſſation of the burning Cauſe, the heat likewiſe ceaſeth to be, and the thicker parts, that are cold and dry, are left to remain behind. And then, either it is *with blood*; (from whence proceeds a doting with laughter) or elſe, *with flegm*, from whence happeneth a dul ſloathfulneſs and oblivion;

or with *yellow choller*, from whence procedeth anger, &c. In the *Cure* a regard is likwise to be had unto the nature, quality and condition of the Causes.

III. Another is of the *Heart* when the vital spirits that are bred, by reason of a cold and dry distemper, are cold, dry, and of an impure nature. The *Cure* differeth nothing from the former.

IIII. Another is *Hypocondriacal*, when a melancholly humor, (that is sometimes cold and serous or wheyish, or else oftentimes that which is adust and burnt in the branches of the Porta vein) is gathered together in the hypochondria, and so from time to time by those black melancholly vapours that are continually sent forth, poluteth and defileth the Animal Spirits in the Brain. *It is known* by this that it seizeth the party by intervals, and at some certain seasons; and most commonly in its access and approach it surpriseth the party suddenly and without any notice given; but sometimes again (and that likwise very frequently) it first of al causeth ructures, windy belchings, together with a pain diffending and streatching forth the stomach; and then by and by it introdueeth great anxiety of mind, difficulty of breathing, the palpitation of the heart, the immovableness of the tongue, and at length a mist and darkness before the Eyes, a tingling and (as it were) ringing noise in the Ears, and lastly, a stupidity and benummedness in either or both of the Arms. It *ariseth* from a feculent and dreggy Vapor, that being collected and gotten together in the Hypochondria from a Melancholy humor flowing from the *Antipraxy*, (as we so term it) or renitency of the Spleen, Liver, and Stomach; and then tending upwards toward the superior parts, and forcibly rushing in upon the members, it produceth and brings in the aforesaid Symptomes; and being transmitted and sent into the brain, either by the Orifice of the stomach, or else by the branches of the Vena Cava (or hollow vein) it there cloudeth and darkeneth the spirits. For the *Cure* hereof see more in the Hypochondriacal affection.

V. Another is (that we cal *Uterine*) from the Womb, which is easily *Discovered* by this, that the sick complain of a pain in their left side, and a manifest pulse and beating in the back parts neer about the Diaphragm. It *ariseth* also from a Vapor proceeding either from the suppression of the Courses, or else from some putridness in the seed. For the *Cure*, see in its proper place.

VI. Another is that we term *Erotick*, as *proceeding from love*, which is either contracted from *Philtres* or Love potions; (and then there must be given, 1. *Vomitories* of the Root of *Asarum*, together with Bezoarticks, Aqua Benedicta *Rulandi*; 2. *Sudorificks*, as for instance, Treacle water, *Diaphoriticum* in acute distempers; the Appropriate remedy is the *Secundine powder*, touching which see more in *Hartman*:) Or else *from* a *Venereal* lustful appetite, & *an over great abundance of the seed*; then in this case we are to deal with those things that allay and qualifie the Veneral heat, and extinguish or (at least) diminish the seed. See more of this Nature in *Ferrandus*, in his peculiar tract.

VI. Another is that we cal *Errabunda*; which most an end useth to infest the Patient in the Month of *February*. In this case the sick persons abound, & are even overspread with Ulcers in their thighs; neither can they possibly for an hour together take their rest in any one place.

Article. V. *Of madness.*

Madness is a continual motion of the mind, with an unwonted boldness and Fierceness (yet without a feaver) arising from a fiery heat of the Spirits.

The *part affected* is the Brain, (the memory (for the most part) being stil preserved, and kept intire) and the Heart, which is (as it were) collected and straightened by the over vehement passions and affections, and a dayly and perpetual enduring of the winters cold, the heart too copiously diffusing the natural heat.

The SIGNES are, Fierceness, and so it is distinguished from melancholy; the want of a Symptomatically feaver; (in regard that there is here no putrefaction) and by this it is distinguished from a Phrensie. Unto the signs aforesaid there are likewise often-times added extream and over watchings, (for want of rest) and divers other signes, that are likewise common to a deliry or dotage.

The CAUSE is the exceeding great and boyling heat of the Spirits; unto the which it is apparent, that of necessity there ought to be conjoyned an occult, secret, and more potent cause; from the enormity and long continuance of the symptoms: But now, from whence this extraordinary heat hath its original, shal be discovered, when we come to speak of the differences.

The CURE is *difficult*, because that the affect

affect is of a long continuance, as wel by reaſon of the cauſe, (which is moſt pertinacious, and hath in it (as it were) the nature and quality of Leven) as alſo in regard of the ſick perſons, who wil by no means yeild obedience unto what is enjoyned. But there is *good hope* of a cure, if the courſes and hemorroides flow forth, if the Belly be looſe and ſolluble; if the ſymptoms be gentle and moderate; if there be a plentiful flux of the blood, out of the noſtrils, out of the greater crooked and wreathed veins of the hips, thighs &c. (the Practitioners term them *varices*) and out of the womb; if there ſweats preſent; and laſtly, if the diſtemper be turned into a kind of ſilent decipience, or (as we ſay) playing the ſimple one. It is to be *performed*, 1. by an oppoſite *diet*, in which the Patient muſt carefully avoid the drinking of wine; but by al means ſleep is to be procured, and the ſick calmed and delighted with muſick. 2. *By the removal of their cauſes that induce and generate the exceſſive heat*; of which we ſhal ſpeak further in the differences. 3, by a *mitigation* of the *ſymptoms*, and more eſpecially, the extream and over long watchings.

The *differences* are taken from the Cauſes that introduce exceſſive heat into the ſpirits.

I. One is from *Cauſes external*, as for inſtance, the extraordinary heat of the dog-days, vehement and exorbitant wrathfulneſs, drinking of hot and ſtrong wines, *Night-ſhade*, the brains of a cat and of a weaſel, wine turned by lightening, Philters or love potions, the eating of dogs and wolves; the curing of fiſtulaes and old ulcers; al which may be ſufficiently known from the relation both of the Patient, and the by-ſtanders.

Another from *Cauſes internal*; of which more in the ſecond difference.

II. Another is from *aduſt* or burnt *blood*, which is *known* by the ſigns and tokens of Plethory, rednes of the eyes, by playing or toying, ſinging, and exceſſive dancing, &c. It *ariſeth*, ſometimes from a hot diſtemper of the liver, and ſometimes from the ſuppreſſion of the courſes and of the hemorrohides. The *Cure* is to be accompliſhed by veneſection or opening of a vein, in the mean time not neglecting thoſe diſtempers and diſeaſes by which it is cauſed.

Another is from *black choler* accompanyed and attended with a certain accute and ſecret property; which is *known* by this in that it is perpetual if it be once lodged and hath taken up its reſidence in al the veins, or elſe at leaſt, in thoſe that are next unto the principal members; if the dorage be accompanied with raging; if the ſtrength of the ſick be extreamly impayred and weakened and in a manner diſſolved by long continued watchings; if there be withal preſent a raging and mad deſire and endeavour to bite and tear, &c. It *ariſeth* ſometimes from an extream hot ſpleen yeilding and pouring forth abundance of black choller. It is *to be cured*, 1. *by letting blood*, as wel by the opening of the left arme vein, and likewiſe the ſalvatella vein (& this letting out of the blood muſt be in the greater quanity, if the blood be blacker than ordinary; but then it ought to be more ſparing, if it be of ſomewhat a reddiſh hiew, as by the opening of the hemorrhoid, and thoſe obtorted and wreathed veins called *Varices*, (if at leaſt they apear) but the forehead vein, if the mallady be refractory and obſtinate. 2. By *preparing* the *peccant humor* by coolling and moiſtening cephalicks. For this end and purpoſe there is much commended, the oyl of champhire, one ounce, the oyl of musk, in weight one dram, and mingled wel together, and ſo adminiſtred the quantity of halfe a dram at once for a doſe; the *decoction* of that *pimpernel* that hath a purple flower. 3. by the *eduction* or drawing forth of the *ſaid humor*, by *melanagogues* (we are to underſtand hereby, medicaments having in them a vertue and property to draw forth blak choler or melancholly) more eſpecially the ſtone called *Lapis lazuli*, and *boney helleborat*; of which laſt *Petræus* hath written at large in his *Noſology*, or treatiſe of diſeales. 4. By ſtrengthening the *heart* and brain with the confection *Alkermes*, and de *hyacintho*. 5. *By the uſe of topical remedies*; in the claſſis and number of which Cauteries applied unto the coronal future have their due and proper place; opening of the *cranium* or skul with the trepan; a *Lee* made with *Laurel berries, and roots of the true black Hellebor*, with which while it is yet a little warme the head ought to be waſhed, &c. Thoſe remedies that are ſpecifical, are *Liquor of mans blood*, with the extract of Lapis *Lazuli*; *Saturuine Cryſtal* adminiſtred with the greateſt caution that may be; the *blood of an aſſe* taken out of the veins behind the Ears; of which *Hartman* hath written ſufficiently, &c. ſee Likewiſe hereof *Rulandus*, in his medicinal Cures.

III. Another is that, which is ſuch Eſſentially; unto the which al thoſe things before mentioned

mentioned may be atributed.

III I. Another is by *Consent*, especially of the *womb*; from whence that kind of fury that we cal *utrine* hath its original and denomination; of which more in its proper place.

Article. VI. *Of Rabies, or raging Madness.*

Raging madness is a deliry (or doting) produced from some certain peculiar poyson bread in any living creature, and communicated unto a man, with a strong and vehement abhorring of al things that are liquid, but more especially, water.

The *Animals* (or living Creatuers aforesaid) that communicate this poyson unto man, are, the wolfe, the cat, and the dog; and cheifly this last.

The SIGNES are, (in the *begining* thereof) anger soon moved and a continual inclynation thereunto; a complaning of the Air, as if it were Southerly and moist; little or no desire to drink; a great desire to have candles lighted up in the day time; and lastly, a vertigo, lightness, giddiness, or swimming of the head. The signs of this distemper *confirmed*, are these; a distension of the members, but this is not continual; foaming or froathing at the mouth, frowning fierce looks, spitting and spawling upon those that are nigh, a barking like as of dogs, an abhorring of, and flying from water, by reason of a singular and peculiar antipathy and dislike; from whence this affect is termed (and that not improperly) the Hydrophoby.

The CAUSE is *poyson*, that is generated in a living creature, from som peculiar inclination it hath and then comunicated unto man by breathing upon him, kissing, spitland biting. In some it is generated (if we may beleive *Donatus*) from an extream terror; and in others, from touching the dog-tree (which they cal *Cornus*) or by the touch of bloodwort, or else, the *Sorb* or service tree. But now this *deliry is produced* in some persons sooner, within twenty dayes at the utmost; but in others more slowly; yea even the twelfhth year after. And this commeth to pass, either by reason of the variety of the part that is bitten; (for some of them are more noble, others againe are less noble) or else, by means of the diet that is used, which possibly may much weaken and abate the strength of the poyson; or by reason of the diversity of patients; or else, last of al, from the difference and Dissimilitude of Countries, times, and seasons.

There may be some *good hope* of a CURE, if the wound or hurt reacheth not unto any nerve, vein, or Arterie; and if it be not very deep. But there is smal, or *no hope*, if there be present a fear of water; and if sighing or sobbing happen thereupon. But if there be any cure, it then *consisteth*. I. in *preservation*, lest that the poyson penetrate into the body; and there occure and take place. 1. A *Ligature* upon the part afflicted; but if the part wil not wel endure it, then a laying upon it those things that have in them either an intercepting, or astringent quallity. 2. *Cupping-glasses*, with good store of flame, and with scarification, if the wound be little; but without, if the hurt be great, and the wound large, 3. *Enlarging* and widening the *part* if the wound be over narrow, that so the poyson may the better flow from the part affected. 4. *Attraction*, by Medicaments that are vehemently attractive and drawing, or else by actual Cauteries. II. The Cure consisteth in that way and *Method of Curing that is properly so called*; where those Remedies that have their place, are, 1. *Purgation* by Hellebor. 2. Appropriate *Sudorificks*, but cheifly, the *simple* or single *Mixture*. 3. The strongest sort of *Vesicatories* (we mean here by al such Remedies as raise and cause Blysters) 4. *Antidotes*; and these are to be administred and given in a double quantity and proportion to what they are wont to be in other ordinary cases, &c.

Chap. 5. *Of the Symptomes of more of the Internal Senses.*

Article, I. *Of the Waking Coma.*

THe Symptomes that infest and annoy many of the internal senses at once and together, and are, the *Waking Coma* (as they cal it) and the *Lethargy*.

The waking Coma is a propension to sleep, and yet withal an utter disability thereunto, arising from Narcotick (or dul sleepy) Vapors, that induce and cause a drowsie and sleepy disposition, and withal trouble and disquiet the mind.

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The SIGNS are, a Connivence or winking with the Eyes, and yet withal a frequent opening also of the Eyes; a mopish or doting kind of discourse in the Patient; and likewise an inordinate motion of the hands and thighs.

The CAUSE is conjectured to be Narcotick Vapors, unto the which there is adjoyned something that brings along with it a necessity of waking; and so doth a Phrensie, a Malignant Feaver, &c. It sometimes also proceedeth from an extream debility of the strength and powers of the body, contracted either from some vehement Diseases grievous and intolerable pains, and an excessive immoderate Evacuation; and then in this case it is very dangerous, if not deadly.

The CURE is very *difficult*, in regard that the affect is easily changed into the Lethargy or Phrensie. It is *very doubtful*, if the parties speech be hindered: if while they breath a murmuring noise be heard in the throat; if the sick persons cannot swallow down what he drinketh without much ado; and lastly, if a thin Humor distil from out of the Nostrils. It is *Performed* (if there be any Cure at al to be expected) by Revulsion, and the Evacuation of the Matter, from which it proceedeth, and hath its first rise and original, &c.

Article, II. *Of a Lethargy.*

A Lethargy is an insatiable propension to sleep, together with a gentle Feaver, forgetfulness, and a dul sloathfulness or Laziness; arising from a Pituitous or flegmy kind of blood putrifying in the hinder nooks, windings, and Cels of the brain.

The *parts affected* are the Posterior or hinder ventricles and Cels of the brain; in regard that in this distemper the Memory is that which is cheifly hurt.

The SIGNS are, *an insatiable desire after sleep*, as being never satisfied therewith; by reason that the brain through its over moistness cannot possibly be expanded; and because likewise that the Animal spirits are as it were bound and lock'd up, by unwonted extraordinary obstructions. Another sign is, a mild *and gentle Feaver*, in regard that the putrifying Humor is not extreamly sharp and fretting, and that the heat is allayed and qualifyed by its Contrary; but then this Feaver is *Continual*, in regard that the heat (being as it were to boyl it up) is continued, and in a manner perpetual, and ever more, from day to day, returning about the beginning of the Night. Another sign is *Oblivion* or forgetfulness, because that the hinder part of the brain is hurt. Another, *slowness of breathing*, in regard the Nerves of the Thorax, breast or Chest, are affected. Another, a *Cough*, by reason of the Flegms Defluxion into the Larinx, or entrance of the wide rough Artery, (we commonly cal it the winde-Pipe.) Another sign is a Turbed, That is to say, a thick, pudled, and troubled *Urin*, in regard that the Crude Humors are agitated and driven about by the heat, and yet are not separated. Another sign is, *great Pulses*, by reason of the Feaver that accompanyeth it; but then such as are not very quick and frequent, but *slow*, by reason of the imbecillity of the Natural strength and powers of the Body. *It differeth* from the *Catalepsie*, by the winking and shutting close of the Eyes; from *Carus*, by the Feaver that is present herewith; from the *Apoplexy*, because it doth not suddenly, and al at once invade the party; neither doth it deprive of al kind of motion: It differeth from the *Hysterical Passion* (we term this affect the fits of the Mother) in that the Lethargical persons are able to speak and make answer (the others not so) and withal they are affected with a moderate and gentle Feaver: and lastly it differeth from *Coma*, by that excessive and insatiable desire of sleep (of the which they have never enough) and out of which they are no sooner rouzed & awakened, but they immediatly fal back again thereinto.

The CAUSE is Flegm or snivel, rotting and putrifying in the hinder parts, (we usually cal them the ventricles, nooks, and Cels) of the Brain. *Where* it is to be noted as *Observable*, 1. That sometimes the said Flegm is diffused al about the brain, and the *Meninges*, and that then it induceth a swelling or Tumor, that is not very great, nor very hard: but that sometimes likewise it is even stuffed and impacted into their very substance, and becomming altogether one with them, and causing them to rise and swel up like unto a spunge. 2. That in old Age (for the most part) a picuitous of flegmy blood is *carried into* the aforesaid parts; and this ill blood hath its original from Narcotick Crudities. Now the reason why *it Putrifieth*, proceedeth from the retention of those Vapors that ought to be dispersed and driven forth.

CURE there is *none* for it, if it be such as is rightly and properly so called; if the strength &

powers

powers be day after day wasted and weakened, if there be an increase of the cold sweat of the head; and lastly, if it end in a *Sphacelus*. The Cure is *very doubtful*, if it happen unto one that is young, and in the hot Summer time; if the Urins that are made are become cleer and thin; if the Excrements that are thrust forth by the belly be many, and also liquid; in regard that this proceedeth from the resolution, weakness, and wasting of Nature: if there happen withal a kind of trembling, because that this imports either great plenty of matter, or else the resolution of Nature; and lastly, if a phrensie chance to follow immediatly upon it. There is *some* good *Hope* of a Cure, if so be the seventh day be over past and gone without any sensible hurt and prejudice unto the party; if the Animal actions be not greatly impaired; if the sick persons find themselves the better, after the expulsion of the matter unto the Nerves; if the matter when it is putrified hath an Evacuation by the Ears or Nostrils; and lastly, if there happen an imposthumation behind the Ears. The Cure is to *be effected*. I. By *Revulsion*, which is performed, 1. by *Venesection*, (& this likewise must be maturely, timely, and seasonably administred) after the putting up of a Clyster; unto which said Venesection, (if there be want of strength in the Patient to undergo the loss of much blood) may be added as subservient thereunto, Ligatures, Leeches, and Cupping-glasses affixed unto the back and shoulders. 2. By *Purgation*, instituted by the *milder* and gentler sort of Medicaments, by reason of the Feaver; to wit, *Cholagogues* in the beginning, and *Flegmagogues* in the progress. But the Remedies ought to be *stronger* and more operative, if the Feaver be remiss and gentle, and the matter urgent: the said Purgation is to be *corrected* with *Castoreum*, which is here very proper, as being appropriate unto this distemper: but we must not by any means omit the making use of sharper and *stronger* Clysters, if there be present a greater and more intense Feaver. 2. By *Repulsion* or driving back, which is to be administred after blood-letting, by the gentler sort of Medicaments, applied unto the Coronal Suture; not neglecting the putting in practise likewise of Revulsion. And for this purpose *Oxymel Scilliticum* (or with squils) is especially good. 3. by *Preparing of the matter*, if the Disease wil allow but of so much time, and truce; but here the *Arabian Stœchas* is carefully to be avoyded, if the Feaver be over great and intense. 4. By a *Particular Evacuation* of the *Brain*; where we are to take notice, that *Castoreum* is ever more to be added, and mingled therewithal; and that *Sternutatories* ought not to be made use of from the very first beginning of the distemper; neither are we continually to persist in the use of them, in regard that they fil the Head: and then again we must not forget that *Vesicatories* are to be imposed behind the Ears, and likewise applied unto the Crown of the Head, or to the Coronal suture. 5. By Corroborating and strengthening of the Head by its appropriate Remedies. 6. By a *Diet*, in the which (at the beginning or first entrance thereinto) the food that the Patient takes, ought to be but little, and thin of quality and substance, but especially such as affordeth a good Juyce and Nutriment; and withal the sleep ought to be very sparing, &c.

It is *divided* in a two-fold manner.

I. One is that which is *Legitime*, and properly so called; of which we hitherunto been speaking. Another is that we term *Nothus*; which is altogether without a Feaver, and is (indeed) nothing else but a profound and deep sleep, and as it were of a middle Nature betwixt *Caros* and the waking Coma.

II. Another there is that is such *by its own Essence*; touching which, al before said is to be taken and understood. Another is *by consent*; there being a certain matter communicated and derived unto the Brain, by reason of the suppression of the courses, or of the Hemorrhoids; or else by means of some other Disease.

Chap. 6. *Of the* Symptomes *of the Animal Motion.*

Article, I. *Of Lassitude, or Litherness.*

THose Symptomes that offend and hurt the Animal Motion, are, *Lassitude*, *Unquietness* or Restlesness, a *Vehement cold* and *Stifness*, a *Trembling*, a *Palsie*, and a *Convulsion*.

A Lassitude is a certain unaptness and unfitness (together with a certain kind of pain) unto the exercise of the Animal motion, which ought to have been performed freely and in a natural way.

As for the signs, the relation of the sick party wil sufficiently acquaint us with them.

The CURE is, whatsoever doth burthen, weary, and make Lither the Muscles that are

the

the instruments of the Animal Motion; whether it be any thing External or Internal.

The CURE is accomplished by the removal of the Causes, and likewise by the cherishing and comforting of the Muscles.

It is *divided* into six *Species* or Kinds.

I. One is that that is *not Spontaneous* or voluntary: unto which, that we term *Exsiccative*, doth appertain. Another is *Spontaneous* or voluntary; which (in regard that it signifieth and manifestly declareth that Humors superabound in the body) may therefore not unfitly be said to presage Diseases; and if it persevere and continue after the cessation of the Feaver, it signifieth a certainty, or at least an extream danger of falling back unto a relapse. And unto this kind belongeth that we cal *Gracility Ulcerous, tensive, Phlegmonodes*, and *Ostocopos*.

II. Another is that which we cal *Exsiccative*, which proceedeth from an extream and over great motion of the body. But in this there is no danger at al, unless it chance to befal a Cacochymical body. It is cured, I. By rest, especially that rest that is taken in sleep, because that then the members are placed in a middle kind of frame and posture, upon the Relaxation of the Muscles. II. By Exercise, if it be more moderate than the former, in regard that it discusseth and disperseth those Humors that are moved up and down throughout the Cavity of the whol body.

III. Another is that we term a Lassitude of *Gracility*, which hath accompanying it no grievous or disquieting sense of pain. It ariseth from a Consumption of the flesh and Fat of the muscles. It followeth upon either Chronical or else (it may be) after some acute Diseases. It is to *be Cured* by a Convenient Diet.

IV. Another is *ulcerous*; which is *known* by the signs and tokens of a cholerick cacochymy, by a sensible pricking and shooting throughout the whol body (from whence indeed it taketh its name and denomination) and by a kind of extream and vehement stifness that ensueth thereupon. It *hath its Original* from some sharp and biting (either) Humor or Vapor; or else from heat diffused and dispersed to and fro, or else such as is wholly dissolved, wasted, and consumed by excessive and inordinate exercise. *It is Cured by Purgation*, if it be so that the matter fix and stick in the more profound and deep parts; but by frictions, and motion, if the matter be only in the Superficies.

V. Another is that we cal *Tensive*; which is *known* by a manifest and sensible extension or stretching out in the Tendons of the muscles, the Fibres, and Nerves. It *ariseth* from a Plethory. It is to be Cured by frictions or rubbings with sweet Oyl, and by baths of sweet Water.

VI. Another is that we cal *Phlegmonodes*, which is known by a sense of Contusion and Contraction, and (as it were) an inflamation of those muscles especially which have their place and situation under the Skin. It *hath its rise*, either from a *great abundance of blood* fallen forth of the Veins unto the muscles, or else such as is attracted and drawn together by overmuch and violent exercise; and then the Cure is to be performed by Venesection or blood-letting: or otherwise it ariseth from the Humors that are in the manner and by the means aforesaid drawn and led along thither; and in this case there wil be great need of Purgation.

VII. The last is that we cal *Ostocopos*, which is *known* by the extension and stretching out of the interior Nerves adhering unto the bones of the Tendons, and encompassing and wrapping about the bones of the Membranes. *It proceedeth* from black choler or Melancholy seizing upon and possessing those Membranes. It usually concurreth and sheweth it self together with the Scurvy, Quartane Feavers, and the French Disease. The *Cure* ought primarily and chiefly to be directed and instituted according to the Cure of the aforesaid Diseases.

Article, II. *Of Restlesness*, or *Unquietness*.

Restlesness or Unquietness is a frequent various shaking to and fro of the whol body and the several members thereof, arising from matter molesting and disquieting those parts that are capable of suffering.

There need no SIGNS; for the Affect is apparent enough to the very view.

The CAUSE is a sharp matter, whether it be a humor, or a hot Vapor.

The CURE must be directed, and so ordered that it look toward the said matter, accordingly as it appeareth in the following differences thereof.

It is divided into *Critical* and *Symptomatical*.

The *Critical* consisteth in that suddain and unexpected perturbation of the Humor; and from whence there is no danger to be feared.

That we cal *Symptomatical*, is that which happeneth in general; and it containeth under it, I. That which we term *Stomachical*, which is known by a kind of Nauseousness in the stomack, somtimes without, but most commonly with a vomiting, and likewise a pain of the stomach. It *ariseth* either from the *Humors* pulling and twinging the mouth of the stomack, &c. (as it were) soaked and drunk up into the Cotes or Tunicles thereof, (in which case purges that abate and lessen the acrimonious quality have their proper place:) or else *from food* unseasonably taken; and here we are to help and succour the Patient by vomiting of him. II. That that we term *Inflamatory*, which proceedeth from the Inflamation of some one of the Bowels. III. That which we cal *Febrilis*, that appeareth in Malignant Feavers, and is very dangerous, if it be attended with the imbecility of the natural strength and powers of the body. In the *Cure* we ought to have respect unto the several species or kinds of the Disease.

Article, III. *Of Rigor, or an Extream Stifness.*

The Rigor or unnatural vehement stifness is a vibration, shaking, and quavering of the Muscles of the whol body, conjoyned with Refrigeration, and a certain pain, arising from somthing that doth molest, by a suddain and unlookt for twinging and pulling of the sensible parts throughout the whol Circumference of the body; and likewise by Irritating and stirring up the expulsive faculty.

The *Part affected* is the whol body, or at least, the Muscles of the same, whether they suffer together more inwardly, or not.

There is no need of *Signs*; the Refrigeration that happeneth herein, either it is of the Skin alone, by reason of a pain excited and stirred up by the acrimony and sharpness of an humor; or else it is also of the Muscles; whether it proceed from the Diffusion of the Humor, or otherwise from the Inflamation of Bowels.

The CAUSE is somthing that is grievous and burthensom; whether it be collected and contained in the very Muscles themselves; or else be transmitted thither from some other place. But now then the said matter is sharp, corroding and biting, much of it in quantity, and such as is swiftly moved and carryed up and down from place to place. And this happeneth most especially in Feavers.

The CURE is accomplished by the removal and taking away of the causes. The Disease, (if it cease not upon the use of an Evacuation) is very evil and dangerous; and so likewise if it be attended and accompanied with a Consumption, and wasting of the whol body.

It is cheifly and especially *divided* in a threefold manner.

I. One kind (or species) hereof is from *things External*; as for instance, a cold Air, or an External heat diffusing and dissipating the Excrements that before were at rest, and were quier, without any molestation; sprinkling of cold water, upon the body; the falling of a spark of fire upon the skin, &c. The *Cure* here hath nothing in it worthy of Observation. Another there is that proceedeth from *Causes Internal*; to wit, a Cholerick humor, a salt Flegm, Melancholy, black choler, and acrimonious sharp Vapor. The Cure hath respect unto the several sorts of the Disease. Al the kinds of them are somtimes *to be Mitigated* with the Oyl of *Rue*, of *Bay-berries*, of *Castor*, and of the *several sorts of Pepper*, together with *Treacle* and *Mithridate*.

II. Another is *vehement with a continual feaver*: and then, if it chance to be in the beginning, it betokeneth an inflamation of some bowel; but if in the end, it sheweth, either that the feaverish matter is moved out of the Veins, or that the Inflamation tendeth to a Suppuration: Another is but *little*, and not much considerable, being such as only giveth notice of Feavers to follow; of which see further in these Chapters wherein they are particularly treated of.

III. Another is *Periodical*, which afflicteth the party but now and then, and by fitts at certain seasons. And this is the best and the most hopeful species of this Disease, if it happen to appear on the Critical day; if upon its appearance the body waxeth hot; or else that any Evacuation of excrements follow thereupon. Another is *Symptomatical*, when as the matter is thrust forth into the external parts, and the Circumference of the body, without any *Crisis* at al; and this is that of which we are now speaking.

Article,

Article, IV. *Of Tremor, or Trembling.*

This Trembling is a depravation of the Voluntary motion, (by reaſon of the which the Member elevated and lift up cannot be kept in its own proper ſituation) ariſing from the debility and weakneſs of the faculty of motion.

There is no need of SIGNS: *It Differeth* from a *Convulſion*, becauſe in this latter the part is contracted, and ſo kept; from a *Palſie*, becauſe that in this the part is ſeldom or never lifted up, or at leaſt very ſlowly; from a *Palpitation*, in regard that in this not the whol Member, but the fleſh, and eſpecially the Skin is moved; and the member unmoved, one while falleth down, and again another while is diſtended and ſtretched forth; and laſtly, it differeth from the *Rigor* or ſtifneſs aforeſaid, in regard that it is without any pain.

The CAUSE is a weakneſs of the moving faculty, which happeneth either by a default in the Animal ſpirits, or the Nerves.

CURE there is *none*, if it befal thoſe perſons that are in yeers, by reaſon of the extream imbecillity and weakneſs of the ſpirits and the brain; if it happen in a vehement Phrenſie, or Melancholy; for then it is cauſed, either by means of the exſiccation or overgreat drying of the Nerves by a Feaver, or elſe by reaſon of a corrupt and depraved quality: if it be hereditary, or that it proceed from ſome fault and diſorder in point of diet, eſpecially in ſuch that have the Organs of the Animal faculty extreamly weakened; if the ſick perſon Shrink and Start when he is toucht; in acute Feavers, becauſe that the Nerves are either exſiccated and over dried, or elſe are pulled and twinged by ſome depraved and vitiated matter, upon which there followeth a Convulſion. The Cure is more *facile* and eaſie, if it proceed from Cauſes that are evident. It is *doubtful* and *difficult*, if it happen on the left ſide, in regard that then the innat heat of that part is the more eaſily impaired and made to decay; if it turn into a Convulſion, becauſe then the peccant matter aſſumeth unto it ſelf and worſe and more offenſive quality; if it happen to be in a burning Feaver, and that a doting follow thereupon; for then ſome great and grievous Diſeaſe ſucceedeth, and the ſtrength, and powers of the body are waſted and conſumed; if the ſick party Shrink and Start when he s toucht, for then the Nerves are become over moyſtened by the peccant Humor. But when we ſet about the Cure, (and that there be any hopes of effecting it) it is then to be *inſtituted* and proſecuted according to the Nature and diſpoſition of the ſeveral Cauſes and differences, touching which we purpoſe to ſpeak further in the ſequel.

The *Differences* are al of them taken from the Cauſes introducing the ſame.

I. One is from *External Cauſes*, eſpecially ſuch as are Malignant and Narcotick, as (to inſtance) *Quick-Silver*, Poyſons, opiates, *Henbane*, the Retention of the Secundines or After-birth, and the ſuppreſſion of the blood after delivery; al which are to be removed. *Another* is from *Cauſes Internal*, of which we ſhal ſpeak more in the Second Difference.

II. Another is *from the Scarcity and want of Spirits*; which either are not generated and bred in a due and fitting ſufficiency, by reaſon of a cold diſtemper of the brain, (and in this caſe, in the Cure thereof the Nature of the Diſeaſe it ſelf ought heedfully to be regarded) or elſe after they are generated they come to be diſſipated, waſted, and conſumed, by an exceſſive, heat an over great Evacuation, and ſome long continued tedious Diſeaſes: and here we are to deal and do our endeavour by preſcribing a fit and convenient Diet.

Another there is from ſome *faults* and faylings in the *Nerves* themſelves; which may be, I. A Cold and moiſt *Diſtemper* of the *brain*; and there are ſome ſigns preſent of a miſaffected brain. The Cure muſt turn towards, and Eye the Diſtemper. For thoſe Remedies that are *taken inwardly*, theſe following are cheifly commended, Viz. The Eſſence of Balm, and ſtœchas of Arabia. Among the Medicaments that are to be externally adminiſtred, theſe are highly approved of, to wit, the Oyl of the flowers of Trifoyl or the three leaved Graſs, *vulpinum*, or the oyl of a fox, the oyl of pepper the Oyl of caſtor, &c. 2. *A Plethory* when ſome wonted Evacuation is ſuppreſſed; & then in this caſe let a Vein be opened. 3. An *Obſtruction* of thoſe ſame Nerves, ſuch as we term partial ones, or a ſtoppage of them but in part, whether it proceed from thick and groſs Humors, or elſe from Gluttony and ſur-charging the ſtomach, and other ſuch like Cauſes. See further hereof in the ſubſequent Cure of the Palſie.

Article, V. *Of the Palsie.*

The Palsie is a spontaneous and voluntary abolition of motion in the parts, (without any the least hurt of the Reason,) arising from a defect and want of the Animal spirits, through some fault and errour in the Nerves.

There is here no need of SIGNS; the motion for the most part perisheth, the sense and feeling stil remayning, there is likewise a kind of softness and tenderness in the part affected; a coldness also, a weak pulse, &c.

The CAUSE is a defect and fayling of the Animal spirits, which happeneth by some fault of the Nerves.

There is *no* CURE at al to be expected, if it chance to be from an extream and forcible Relaxation or Loosing of the *Vertebræ*, in regard that then the Nerves are greatly crushed together and very much bruised, insomuch that an inflamation followeth thereupon; if it proceed from an incision or cutting of some one of the greater Nerves, or the the spinal Marrow, because there is then no Hope of a Coalition or closing together again of the incision. The Cure is likewise exceeding *Difficult* and hard to be effected, if it happen unto aged people, in regard that it denoteth an imbicillity of the heat; if the member be extenuated, and the natural vegetative heat thereof be changed and altered; especially if the eye on that side be impaired, because it argueth then that the heat is wel nigh extinguished, if there be many of the nerves and muscles affected; if it succeed and follow upon an Appoplexy, in regard that then the cause is over vehement. But the Cure is *more easie*, if the resolution be in the thighes or feet, because that in those parts the nature and constitution of the nerves is dryer than elsewhere; if the member resolved and loosened be actually hot; and lastly; if a trembling, or a feaver follow upon it. It is to be instituted and ordayned, according to the nature of the causes, and the differences.

The *differences* of a palsy are very various.

I. One is *Universal*, in the which either the whole body (the head alone excepted) is seized upon, or at least, the one halfe thereof or one side of it. And then, if the *Face* be affected, the brain also, (together with the spinal marrow) is affected: *But if al the parts beneath the face*, then the begining and first entrance into the spinal marrow (which we cal the marrow of the back bone) is very far amiss in its transverse situation: but if the affect surprise only *the one half* of the body, one side then only of the Said spinal marrow is likewise affected, and becometh faulty.

Another is *particular*, when alone some one certain part suffereth. And then, if the *Arms* and hands be deprived of their motion, then the nerves that proceed forth from the *vertebre* of the hinder part of the neck, offend and are faulty. If the *Feet*, then those nerves that are in the *vertebræ* of the Loyns, and the *Os sacrum* or channel bone. If the *eyes*, then the second pair of nerves is affected, If the *Tongue*, then the seventh payr of the nerves is affected. And lastly if the voice fail, then those nerves that are called *recurrentis*, they only are affected and do suffer.

II. Another difference there is, arising from a distemper in the *nerves* themselves, by reason of phlegmy and cold humors, that *relax* or *loosen* and dissolve *their* tone: and these for the most part descend from the head. These humors may be *known* and more fully understood what they are, out of the Chapter touching the distemper of the head. The *Cure* is to be wrought, 1. by a gentle evacuation and imploying of the first and most principal passages, least that otherwise the preparatives draw the crude humors into the stomach; (and here *vomiting* procured and excited by the use of *Crato* his vomitary made of the *Juyce of the reddish* in the which *black hellebor* hath bin steeped and infused, hath its place if the stomach be stuffed ful of flegm) but then if the matter be in its flux and motion, the evacuation ought to be so much the *stronger*. 2. by a *preparing* of the matter, more than once, by Cephalick medicaments; among which *Iva Arthetica*, *primrose flowers*, *the Flowers of Lilies of the Vally*, are the best that are now adayes in use. 3. by purging, with mechoacan, or the *Pils* so much used by *Solanander* and *Mathiolus*. 4. by *exciting* and *provoking* of sweats with the *Hidrotick* of Quercetan, and the sudorifick of St. Ambrose; unto which there must be added, *Guajacum*, *china*, *Treacle*, *Bezoardicum Lunare*; together with other apropriate remedies; al which are to be followed and attended with frictions of the neck or the *spina dorsi* with onions, and the new fresh root of the flowerdeluce. 5. by a particular *evacuation* of the brain, by errhines, Apophlegmatisms, &c. 6. *by the application of Topical* remedies; where have their place, frictions, rubbings and chafings with the *water of ants*, and the watter of sage, with *tobacco*

leaves

leaves infused in Malmesey, Bathes with *formicetes*, Rubifications (or rubbing the part til it become red) with *green Nettels* and other suchlike; inunctions with the unguent of *vipers*, the unguent likewise of the *several sorts of pepper*, the Unguent of *Castor*, the *grease* of the *wild Cat*, mans fat, &c. *Natural* or *Artificial hot baths*; touching which se further in *Heurnius* his method. 7. by a *diet that is hot and dry*; concerning which consult the Practitioners in Physick.

Another is from the *straightnes* or narrownes of the *Nerves*; which is caused, 1. By an *obstruction*, proceeding from a pituitous flegmy humor, and other things that are subservient hereunto, and conducing unto the purpose aforesaid. Then the cure hath regard unto the Cause; touching which we have spoken sufficiently above, 2. a *Constipation* from some tumor or swelling, that hath its first rise in the substance of the spinal marrow, or of some nerve. 3. *Compression*, and that either from some external cause, or else from a Tumor, &c.

III. Another is from those *Causes* that dissolve or *make a solution of unity in the nerves*, in the number of which there is, 1. a *Contusion*, fal, or blow. And then a vein is to be opened lest there should happen an afflux unto the contused or bruised part. Astringents together with discussives are likewise to be applied and layed upon the part affected, unless (haply) there be present an inflamation. 2. a *dissection*; and for this there is no remedy at al to be had, 3. a *relaxation* (or loosening) of the *vertebræ* of the Back, suddenly caused, of the which sufficient hath been spoken in the second Book.

Another is from *things narcotick*, as for examples, a touching of the sea fish *Torpido*, quick-silver, and the immoderate unseasonable drinking of wine, which rendereth the spirits extreamly stupid and dul: and here in the cure whereof there ought to be a special regard had unto the nature and quallity of the Cause.

IIII. Another is *Colical*, when a humor from the intestines is moved, not so much unto the begining of the orifice or first enterance of the nerves, as unto the very muscles and tendons. The *Cause* hereof is a thin humor, that is both chollerick, and wheyish. In the *Cure* we must deal cheifly and principaly by clisters, that so the perverse motion of nature may be inverted. A vein is to be opened, if there be present a Plethory and orver great abundance of pure and good blood. We ought then to purge with gentle purgers (as we terme it) by an *Epicrasis* or an often reiterated evacuation, and drawing forth of the peccaut matter, leisurely and by degrees, some now, some then, and not al at once. Let sudorificks then follow, administred in primrose water, and the water of Lilleyes of the vally. The spirit of *Niter* is also of excellent use in this case.

Another is that which we terme *Scorbutick*, touching which see more in the Scurvy.

Another is that we cal *Hysterical*; of which also we may see more in its own proper place.

Article. VI. *Of a Spasm, or convulsion.*

A Spasm is an involuntary, perpetual, and painful Retraction (or drawing back) of the Muscles towards the place of their original and first beginning, arising from the abbreviation and shortening of the nervous (or sinewy) parts; which is evermore attended and followed with a Rigor or Extream stifness, and a depravation of the figure, shape, and symmetry of the foresaid parts.

The *part affected* is a Muscle, and especially a Tendon.

The SIGNES are apparent of themselves; the Muscles are in such manner drawn back, that the parties are altogether immovable toward, and unto the contrary.

The CAUSE is, either a certain matter pulling and twinging the expulsive facculty of the parts; or else some disease voilently stretching out the nervous parts: and this sticketh fast either in the beginning and sourse of the nerves (to wit, the Brain) or in the Spinal marrow, or else in some one peculiar nerve.

There is hardly any CURE to be had, or hoped for, if it be from hellebore; if it arise and appear after a Phrensy; if it proceed from a wound, especially in the brain, by reason of a filthy stinking and corrupt matter pulling and twinging the nerves. The Cure is *very difficult* (although not altogether without hopes) if those parts that are situate neer unto the brain be affected, and suffer; if it happen primarily by the consent of some nerve, in regard that then the sick person cannot possibly hold out and endure by reason of the vehemency of the Symptoms; if it arise from an abundant flux of blood; if it follow upon the monthly Courses in women; if it attend and follow upon feavers; or if it chance to be accompanyed with vehement and accute pains about the bowels or intrals. It is *more easie*, if those parts only

are

are surprized and siezed upon that are more remote from the brain, and consequently the less noble and considerable; if it be by the consent of the Brain, unless the affect that the brain lyeth and laboureth under, be pertinatious, obstinate, and unyielding. The Cure ought therefore to *be Instituted*, according to the Nature and disposition of the Causes; of which more fully in the Differences.

The *Differences* of a Spasm are very many and Various.

I. One is *Universal*, which affecteth the whol body. The *Cause* whereof, either, *It is in the Brain*, and then together with the body, the Muscles likewise of the Face are also drawn and pulled together, and suffer a Convulsion, or else it is in the *Original and beginning* of *the Spinal Marrow*, from whence it happeneth that the Muscles that move the Head and the spinal Marrow are retracted and drawn back. And then, either the body (with the Neck and Head) is drawn to the inner parts, (from whence ariseth that we term *Emprosthotonos*:) or else the twelve Mulcles that extend the Head being affected, the aforesaid parts are drawn backward, (from whence is that we cal *Opisthotonos*:) or otherwise the Muscles and Nerves (as wel the anterior as the posterior) being al of them affected, the whol body remayneth altogether inflexible and unmoveable; from whence ariseth that we cal *Tetanos*, with the which whosoever are affected, either they die within four daies; or else if they pass and out-live these, they then escape and recover. Another is *Particular*, of the Eye, Mouth, &c. Of which we shal see further in the proper place.

II. Another is from *Replexion*; which dilateth the breadth of the Nerves, and diminisheth the Longitude thereof. *It is known* by the foregoing of the Causes, a sudden invasion and surprisal without any evident and manifest Cause, and exhasting, together with a Flegmatick habit and temperament. *It ariseth*, I. From the *Afflux* of a *Pituitous* and Flegmatick *humor* into the Nerves, according to their Tunicles (or little Cotes) and as they are essential constituting parts of the Muscles, and instruments of the motive operation. Then there went before it such a like kind of Diet, and the monthly Courses, Hemorrhoides, or other wonted Evacuations are suppressed. In the *Cure*, 1. We must attenuate and Cut the peccant matter by a timely administring of a Clyster. In the next place, those things that are highly commended and approved of, are, the *Treacle* of *Andramachus*, the *Water* or the *spirit of Juniper*, and the *Balsam* of *Quercetan*. 2. We ought to Evacuate oftentimes with the milder and gentler sort of Medicaments; the stronger sort of them pour out, and quite expel the matter. 3. A Revulsion must be made by frictions, Gargarisms, Cupping-Glasses, &c. 4. A Discussion of the offending matter must be wrought with the *Oyl of Castor* of *Euphorbium Turpentine distilled*, the *Oyl* of *Nutmeggs*, and the *Hot Baths* of *Sulphur*. 5. In the Diet that is used there must be no kind of Wine drunk. II. It proceedeth from an *Inflamation of the Nervous parts*; and then there is present a Plethory: a fal, or a blow, or somthing else that was violent, long continued and acute pains in the Nervous parts, vehement anger, and passions of the mind, &c. had their precedence. The afflux of blood hotter than ordinary is in great part the Cause hereof. The Cure is to be directed, and to look towards the Inflamation. III. From extream windinesses: and then the Causes thereof, went before and it soon passeth away, & is gone. *To Discuß*, *Vervein* and *Mother-wort*, imposed upon the Neck, are very available. 4. It happeneth from the *wounding* or *pricking* of a *Nerve*, whether the said wound and hurt be simple, or poysonous; but of this kind of spasm we have treated before in the second Book.

Another is from *Inanition*, or extream emptiness, in which the Nerves are rendered and made shorter by reason of the exsiccation and sudden drying up of the Native Rudical Humidity. *It is known* from hence, that it maketh its approach sensibly and by degrees, with a diminution of the member. *It ariseth* from Causes, that do either excessively evacuate, such as are, frequent and much bleeding at the Nose, sweats, and purgations with Hellebore; or else they vehemently heat, and dry up the radical Moysture; and such are, Inflamations, watchings, hard labor and over working, the drinking of much wine, immoderate and excessive venery, a long lasting pain, the Hectick Feaver, and lastly, Cauteries or Vesicatories over frequently applied unto the Nervous parts. It is to *be Cured*. 1. By a moystening *Diet*. 2. By Medicaments that are *Analeptical* or restorative, and moystening; and such are the unguents *de Anſere & Cata assatis*, (that is to say, of a Goose and a Catt rosted) and baths made of Oyl; the *fattening* water of *Ferdinand*, (in his

his third Book, and the Chapter touching an Hectick Feaver) made of *swines Blood*. Morsels of the Flesh of the *Tortoise*, or of *Crawfish*. The Magisterial of *Hyacinth* is specifical.

Another is that we cal *Phusodes*, which hath its original from a gross and thick spirit or Vapor, (excited by Crudities,) that filleth out the spaces of the Muscles, and distendeth them with a grievous pain. It endureth so long as until the Muscle be relaxed: it is quite removed and taken away by frictions, and rubbing and chafing of the parts affected; or else by annoynting it with *Treacle*, or *Juniper water*.

Another is *Illegitimate*, (as we term it) which proceedeth from the exstimulation, goading (as I may so say) and pricking forward of the Nervous parts by some painful affect, but yet without a perpetual extension and stretching forth of the said parts: for the most part it happeneth by consent of the Orifice of the Stomach, or of the Womb. The aforesaid grievous and painful affect is either from some distemper, or else from the solution of continuity.

Chap. 7. *Of those Symptomes that hurt the Internal senses, the Reason and Motion, together with the External Senses.*

Article, I. *Of Incubus, or the Night-Hag, and Catalepsis.*

THe Symptoms that hurt the Internal senses, the Reason and motion, together with the senses External, are *Incubus* or the Night-Mare (as we usually term it) *Catalepsis*, (we commonly cal it a Taking) the *Epilepsie* or falling sickness, *Carus*, and the *Apoplexy*.

Incubus (*the Night-haggs*) *is an interception of the motion, especially that of breathing, and the Voice, with a false and Erroneous dream of some heavy and weighty thing lying along upon the Breast, and thereby causing a suffocation (as it were) and choaking of the Party, by means of the impeding and hindering the free penetration of the spirit (the Passages being obstructed and stopt) unto the Nerves.*

The *part affected* is the Brain, especially in the hinder part thereof, by which the passage reacheth and attaineth unto the beginning of the Spinal Marrow. The *Diaphragm* is likewise compressed, and kept down.

The SIGNS are, a heavines, and immovableness of the body, and chiefly the Chest or Breast, a slow and dul sense, an imagination and conceit of a suffocation, (especially in the first beginning of sleep, & the party lying upon the back) and as it were an oppression and keeping down by somwhat lying heavy upon it; insomuch that the Patient can by no means distinctly cal and cry out, but only make a confused and unintelligible Noise. The alone interception of breathing and the voice is brought and offered unto the imagination; in regard that the motion of the breast alone is mainly and principally necessary in the time of sleep.

The CAUSE is, an interception of the Animal spirits, arising from a light *Obstruction* of the Ventricles of the brain, and more especially of the beginning of the Spinal Marrow. That that Causeth this obstruction is a *Gross* and *thick Vapor*, that is oftentimes cold, yea even Narcotick; and hence it cometh to pass, that the party thus affected is so hardly awakened. That which proceedeth from a gross and thick Flegm, or from a Melancholy Humor sticking fast in the Hypochondria, and neer about the Precordia, this (in these persons) from Gluttony, surfetting and drunkenness (the stomach being thereby sur-charged) from Crudities, or other such like Causes being swoln and puffed up, and then moved, exhaleth and compresseth the Diaphragm and the Lungs, rusheth violently into the beginning and enterance of the Nerves, and so creeping (as it were) and insinuating it self into the very seat of the Imagination, there intermingleth it self with the spirits.

The CURE is the less to be hoped for, if from an internal cause it fleze upon those that are wel in yeers; if it be of long continuance, and frequent, and such as after which the sick person remayneth stupid and blockish; if it happen unto the party while he is half asleep and half awake, because that then it cometh the neerer to the Epilepsie or falling sickness; if after the awakening a cold sweat, a trembling of the heart, a spasm, convulsion, or a syncope follow thereupon. *It respecteth*, 1. the *Paroxysm*, in the which the sick persons are to be awakened & rouzed up, & the vapor is then to be dissipated by frictions and Vehement rubbings.

rubbing. 2. The Cure respecteth the *time out of and after the Paroxysm*, in which. 1. A Diet is to be kept, which exactly requireth a thin and pure Air, sparing meals, especially a light and sparing supper, the use of no other Wine or beer but what is diluted and so made weak and smal; and lastly, a careful avoyding the supine posture of the body, or lying upon the back, when they go to sleep. 2. The *matter* that Foments the Vapors (if it be deeply seated) is to be *Prepared* by such Medicaments as cut and cleanse; and then forthwith *to be Evacuated* in a due and fit manner. The opening of the Cephalick or the Hepatick vein, and if Women (that complain of the suppression of their Menstrual blood) the opening of the Saphena Vein, (especially in case a Plethory be present) is very much to be approved of. 3. The head being first wel purged, is, without delay, to be strengthened; internally, with the *Black* seed of the male Piony; and likewise with *Treacle* exhibited and administred in the water of the male Piony; externally, by Lotions made of Cephalick Medicaments. 4. The Vapors that offend after meats, are to be Remedyed and prevented by the frequent use of *Diacydonium*, *Coriander's prepared*, &c.

Catalepsis, *or* Catochus, *is a sudden surprisal of al the senses, the motion, and the mind, with the which those that are siezed upon and invaded, remain and abide stiff in the very same state and posture in which they were taken and surprised, with their Eyes open and immovable.*

Of SIGNS there is no need. As touching the *Cause*, the learned differ among themselves. It is most probable, that the spirits are fixed and rendered immovable by a *Fixative Vapor*, in such like manner as we read, that both men and Bruit Beasts have been Rendered stiff and immovable by lightening, Vapors, and exhalations breaking forth of the Earth. Yet notwithstanding even in this Disease there are to be recounted several *Degrees*. For some of them neither see, nor hear any thing; others both hear and see, but speak not at al; some again are seen to move their heads; and some of them being driven and thereunto forced, do walk. For the Cure of this most rare and sad affect, see more in the Practical Physitians. In the Topical Remedies hereunto apperteining, we ought to abstain from Vinegar, lest that by it the Congelative power should be augmented.

Article, II. *Of the Epilepsie, or falling sickness.*

The Epilepsie is a Cessation of the Animal and principal actions, together with a Convulsive motion of the whol Body, arising from a sharp matter, which by a peculiar and proper power and quality, it hath, that is hurtful and Prejudicial to the Brain, pulling and twinging the Nerves where they begin, streightening, and as it were binding them fast together, and Irritating them unto Expulsion.

It is likewise called the *Puerile*, or Childish Disease, the *Herculean*, the *Comitial* Disease, (or the Falling Sickness) the *Lunatick*, *divine*, *Sontick*, or noysom and hurtful, and lastly, Caducus, or the falling Evil.

The Signs are, either of one *Imminent* and nigh at hand, and these are, the trembling and quivering (as it were) of the Nerves, splendours and bright shinings like unto the Rainbow flying and waving to and fro before the Eyes, the sense and smelling of some offensive stench, the Vertigo, and the yellowness of the Veins under the Tongue; or else of *one Present*, and these signs are, a sudden falling, a *Contorsion* (as they cal it) or writhing of the Members of the Face, very improportionate unto, (or bearing no proportion withal) the matter thereof, a kind of Roaring and Howling noyse that they make, the guting, and close clashing together (or as they cal it, Collision) of the Teeth, the shutting and fast holding together of the Fingers, an involuntary and insensible letting out of the Urin, and sending forth the other filth and Excrements, foaming and froathing like unto the white of an Egg, &c.

The CAUSE is, either a *thin* and *froathy Humor*, or Vapor, the which whilest that they (by a peculiar and proper power and quality that is in them) twing and pul in the brain the principal of the Nerves, and so thereby introduce a constriction and streightning of the Passages; and whilest likewise they extimulate & provoke the sensible parts unto the expulsion of what is noxious and offensive, from hence it is that there followeth a shuting up, and drawing back of the spirits causing sense (which they term Sensifical) and so consequently by the want & defect of them, there follow-

followeth alſo ad-minution or total abolition of the aforeſayd ſenſifical Spirits. And from hence it is, that al the parts ſuffer a convulſive motion. That which *diſpoſeth* hereunto is either (by propagation and *inheritance*) from the parents; or elſe from their nativity, when as they have their birth in and during the Lunar Eclipſe. That which fomenteth and maketh an abundant ſupply of the *matter*, is, the frequent uſe of Goats liver and Goats fleſh; of Quailes that devour and feed much upon helebor, pigeons when they are ſomwhat old, Eels, ſparrows, al kind of Pulſe, Lentiles, &c. that it moveth and much promoteth the ſame, is the moon beams, the ſmelling of offenſive and noyſome ſtinks, the ſcent or ſmel of that fat and clammy earth that we cal Bitumen, of the Agath or Jeat ſtone, of Goats horns, harts horns, Goats skin, Myrh, Sulfur, Garlick, ſmallage, &c. an extraordinary ſtrong and vehement feare, much tikling, and laſtly, the impulſe of the divel, &c.

The CURE is the *more difficult*, if al the Functions be aboliſhed, if the convulſion be ſtronger and more vehement than ordinary, and of a longer cotinuance, and that withal the Excrements flow forth of their own accord; if it happen before ripeneſs of years, and it it infeſt old and decriped perſons; if it invade women with child. It is *eaſier*, if it be but now beginning, if it hath ſhorter Paroxyſmes, a convulſion not extreamly vehement, if the ſick party hath his breathing freely. But theris *almoſt no* cure to be hoped for, if it be hereditary, if it grieviouſly afflict little infants, if upon the uſe of ſternutatories the ſick Party yet cannot be made to ſneez. The Cure (when we ſet about it) *reſpecteth*. 1. the very *paroxiſm* it ſelfe, either inſtantly and neer approching, and then a drop or two of the eſſence of Caſtor, or the ſpirit of white Amber in the Antepileptical water of *Langius*, or elſe one pil of Opiate Ladanum, (unto which there ought to be added and therewithal mingled one fourth part of the oyl of Camphire) is to be taken and ſwallowed down: or elſe it hath reſpect unto the Paroxiſme *now preſent* and in being, in which (among other remedies) the mouth is to be opened and a little bag filled with Rew, Caſtorium, &c. is to be interpoſed betwixt the teeth; then a Revulſion by trictions and ligatures is to be ordayned; in the next place, the belly is to be opened and implyed either by ſuppoſitoryes, or a ſharp and quick Clyſter, in the which there are ſome that boil the droſs or refuſe of *Regulus Antimonii*. The Noſtrils are to be anointed with the balſam of Amber, and of Rew. The tongue and pallate are to be beſmeared and anointed with *Treacle*, diſſolved in the vinegar of Rew: if the patient be not yet exited and raiſed by theſe means, then ſternutatories are to be adminiſtred and applied, or elſe a turtle having al its feathers firſt pulled off, is to be impoſed on the navel. *Inwardly* there is to be adminiſtered the water of ſweet black Cherries, and that likewiſe of ſwollows, with the oyl of Amber, as alſo that of a mans skul. 2. the Cure hath reſpect unto *the time without* (either before or after) *the paroxyſm*, in which. 1. Let the *matter* (the root of the evil) be prepared, the blood being firſt diminiſhed, unleſs haply the malady be inveterat: then let it be purged forth by the *inferiar waies* and paſſages, with Agarick, or ſome other convenient purger (and this at ſeveral times by repetition, and not al at an once) with ſpecial regard had unto the humors that poſſibly may very much abound. Then let the remainder of the ſame aforeſaid matter be quite removed, and taken clean away by Sudorifickes, eſpecially thoſe exotick and forrien ſweaters, to wit, China, and Guajacum, together with our Country birdlime of the Oak. 2. the *matter* that is left *remaining* behind in the brain, is to be drawn forth by errhines, Apophlegmatiſmes, thoſe remedies that we cal ſetacea, and laſtly, by iſſues. 3. Let the *brain* be *corroberated* and ſtrengthened by cephalicks and Antepilepticks. 4. Let there be a *diet* kept and obſerved, in the which al meats generateing vapours, eſpecially ſuch as favour and cheriſh the diſeaſe, wine, venery, &c. are carefully to be avoided. 5. Thoſe things that are appropriated unto the head, and *do ſpecifically reſiſt the Epilepſie* (of which we are now treating) are to be added and together mingled with al the aforeſaid remedies; ſuch as are, *the root of the male Peony* gathered in July, at the waning of the moon, the right *hoof* behind of the beaſt called *Alx*, bird-lime of the Oak, the magiſtery of *mans skul*, the water of *Swallows*, of Cherries black and ſweet, of the Linden or Til tree the oyl of *white Amber*, the oyl of mans skul, wafers made of the dew that is gathered at the feet of St. *John Baptiſt*, in the night of that day, a Pouder that conſiſteth and is compoſed *of one dram of Cryſtall prepared, red Corall two ſcruples, oriental margarites one ſcruple, oriental Smaragds prepared half a dram*, and ſo

Exhibited and given in a fit and convenient matter, according to its own propper dose. There may be applied, outwardly, the *skin* of a *wolf*, taken from that part where it sticketh and groweth to the *spina* or Back bone, of two fingers breadth and worne like a girdle, and also the Amulet (ex *frutice sambuci* in *salice*) of Hartmans invention. One signe of a perfect Cure is this, viz. If the Patient fal not into his fits (which appeareth by his falling upon the ground) when there is put neer unto his nostrils a suffumigation of things of an il and stinking savor.

The *differences* of an Epilepsie are very various.

I. One is that we terme *Recent*, or new begun. which if it be neglected in the begining, most commonly it dieth together with them that are deteyned and kept under the power of it. Another is that we cal *inveterate*, which whether or no it may be cured, is for the most part very doubtful and uncertain.

II. Another is that which is *more mild* and moderate, in which only some certain parts are drawn together and suffer a Convulsion; and the sick person when he cometh again to himselfe, as we say, is wholy ignorant of al that he did. Another is more sad and *greivious*, in which there is a Concussion and convulsion of the whole Body.

III. Another is that we term *Periodical*, which invadeth and seizeth the party once or twice in every year, or it may be, every month (at the new and ful moon) or perhaps oftener, but yet evermore at those times and such intervals as it was alwaies wont to keep. Another is that which *keepeth not*, neither observeth *any periods*, But afflicteth and surpriseth the patient, sometimes more rarely, and sometimes again often, and frequently.

IIII. Another is that which is such *in its own essence*, to wit, when there is an epileptical disposition in the very brain. It *is known* by this, that a man suddenly fals down, without any the least pre-apprehension and sense of its paroxism, and that when he returneth to himselfe he remembereth not any one thing of what was done, and lastly, that he is affected herewith chiefly and principally (to which I may likewise ad, very frequently) about the new and ful of the Moon. It *ariseth* and hath its first birth from those very same causes of which we have spoken above; and it is also to be *Cured* in the self same maner. If there there be any need of venesection, then let the Cephalick vein in the Elbow be opened; and here likewise fontinels or issues, and those external and manual remedies which practitioners cal setacea, are of singular use. In this difference alone there may be a cautery applied unto the Coronal suture. It sometimes *hapeneth by reason of an impostume in the brain*; and sometimes from the *corruption* of the *Meninges* or Membranes therof; sometimes again by means of a *rotten and putrified skul*, a *wound*, &c. touching which enough hath been already sayd in its proper place.

Another is by *Consent* or agreement with some other parts, when the cause being before produced and begotten in the inferior parts is lifted up into the head, and there exciteth an Epilepsie. It is *known* by this, that the paroxysm when it is nigh approaching may be perceived and foreknown; and a certain kind of air (as it were) ascending from an inferior part, there is a pain perceived in some one part or other; and then the sick person returning to himselfe remembereth the paroxysm. The *Cure* is to be ordered according to that part that most requireth and commendeth it, and the matter that tendeth upwards is to be drawn back again. It is variously *divided*; of which we shal speak more in the following difference.

V. Another is *from the stomach*; in the which the sick persons fal into the epilipsie: if they take not their food often, then there are present signes and tokens of a distempered and affected stomach. In the cure, we may safely and successfuly have recourse unto vomits, &c.

Another is *from worms*, which are easily discovered by their signes. Unto scolecobrotick Medicaments there ought to be added and therewith mingled Antepileptical remedies.

Another is *from the womb*; which *is known* by this, that there is then some affect or other of the Womb present; to wit, the suppression of the courses, the retention of the Seed, or the Secundines, a dead childe in the womb, &c. The Cure is to be directed and to look toward the Affects in the which the root of round aristolochy is much commended. *Note* here, that the water of swallowes distilled with Castoreum, Galbanum, and vinegar, is most proper and convenient; that for a woman great with child there ought not upon any termes sweet smelling odoriferous things be applied or laid neer unto her wombe; yea likewise, that al odoriferous medicaments, since they

they offend the Head and make it heavy, are wel removed from it.

Another is from *the External parts*, either wounded, or ulcerated, or elſe hurt by biting, which is exactly and diligently to be examined and inquired into, leſt that otherwiſe it ſhould be miſtaken for that which proceedeth from the Womb. It is to be Cured according to the Nature and quality of the Cauſes.

VI. Another is of ſuch as *are grown up*, and have attained to maturity of yeers; unto whom al that hath hitherto been ſpoken upon this ſubject, is to be applied as moſt ſuting and agreeing unto them.

Another is of *Infants*, in the *Cure* of which, if they be yet *ſucking* at the Breaſt, in the *Paroxyſm* we muſt then proceed ſo as is above declared; only there muſt be ſpecial Care and regard had unto the tenderneſs of their Age. Out of the *Paroxyſm*, the Nurſe ought (as far as neceſſity requireth) to have appropriate Medicaments given her to drink; and withal the Infant is to be Evacuated and emptyed with *Syrup de Tribus* (as the ſhops cal it) and then his brain is to be ſtrengthened, and the impoſtums, (if any there be that break out) are by no means to be hindered in their flux, but on the contrary, they are by al means poſſible to be furthered. There are ſome that (in this caſe) do very much commend the anoynting of the whol Body with *Butter unwaſhed, unſalted, and Mingled with Rue bruiſed and beaten in a Mortar*. An approved Remedy to preſerve from this ſad and fearful affect, is, the *preſerving power* of Hartman, the *Aqua Vitæ that is* uſually *Exhibited* and given *unto Women with Child*; *Oyl of ſweet Almonds with Sugar*, given to Childeren new born. In that Difference that is by conſent; there is to be highly commended the Emplaſter of *White Amber, of Frankincenſe, and of Maſtick, of each one dram and an half, of Galbanum, Opoponax, of each one ſcruple, of Birdlime of the Oak two drams, Amber ſix grains, Muſk three grains, Male Peony ſeed half a dram, Ladanum a dram and half, of the Oyl of Nutmeg a ſmal* quantity, al theſe aforeſaid being ſtrewed over with the pouder of Cubebs, the emplaſter muſt be ſpread upon leather, and ſo impoſed upon the Abdomen or lower belly. But if (*in Women*) it happen, as many times it doth, from *the Curdling of the Milk*, then that which is of ſingular uſe is a Cataplaſme formed of *Elm-leaves* (*three parts*) *boyled in the Urine of a Child, with two ounces of butter new and freſh*, and then applied unto the Region of the ſtomach. The Cure of *Children that are weaned* differeth not much from thoſe before mentioned.

Article, III. *Of Carus.*

Carus is a deep and profound ſleep, with the hurt of the ſenſe, and motion, (the breathing only excepted) and likewiſe the Imagination, ariſing from the impeded motion of the Animal ſpirits.

The SIGNS are, ſleep (with the Eyes alwaies ſhut) ſo profound, that the ſick perſon being asked never ſo many queſtions, yet anſwereth nothing at al; and ſo it is diſtinguiſhed from a Catalepſie and a Lethargy: a retraction or drawing back of the Member if it be pricked, which is not done in the Apoplexy; a free reſpiration and breathing, unleſs the vehemency of the Cauſe be moſt extream and intenſe.

The CAUSE is the prohibition and hindering of the influence and exerciſe of the Animal ſpirits upon the ſenſes and the Motion; of which the divers and different Cauſes ſhal be declared in the ſubſequent differences.

CURE there is *None*, if it chance in the declining of continual Feavers, the ſtrength and powers of the body being extreamly weakened. It is of much *difficulty*, if the breathing be hurt; if it be Joyned together with the heavineſs of the Head, becauſe that, a humor not over groſs and thick penetrating into the ſubſtance of the Nerves and extending them, immediatly a Convulſion followeth; and laſtly, if it befal the party after ſome great Evacuation. It is *Accompliſhed* according to the quality and condition of the Cauſes.

It is *divided* five manner of waies.

I. One is, *When there are no Animal ſpirits generated*, which happeneth when either the *Arteries Carotides* that carry the Animal ſpirits unto the brain are hurt, or elſe when the *Muſcles of the Temples*, (having a very notable and ſingular agreement and conſent with the brain, by the intercourſe of ſome eminent Nerves) *are Compreſſed*, or bruiſed.

II. Another is, *when the Animal ſpirits are diſſipated*, which cometh to paſs, either from ſome extraordinary and *exceſſive Evacuation*, or elſe from ſome *exquiſite pain*,

proceeding from either an external or an internal Cause; or else, issuing from the *Defatigation*, wearying, and tiring of the *Brain*, by reason of an over-great and extream shaking thereof; which cometh to pass in that heavy deep sleep that hapneth in the Close and conclusion of the Epileptical Paroxysm.

III. Another is, *When the Animal Spirits are stupefied* and made, as it were *drowsie*. And this is done, either *externally*; and that, 1. *From the fume of coals* kindled in some close room, or Parlour; of which we have likewise spoken above. 2. From the use of *Narcotick Medicaments*, *Opium*, Hen-bane, &c. Where Castoreum with Oxymel or Cassia Lignea have their place. 3. From *Poysons*, either taken inwardly, or else outwardly applied; where Treacle ought to be administred. Or else, *internally*, 1. *From Vapors* sent forth *in Feavers*; and 2. From the same Vapors *elevated by Worms*; touching which, their proper places are to be consulted. The Cure may be fought out and found in the following Member of the Difference.

IV. Another is, *When the spirits cannot penetrate unto the Members*: And this is done, I. From the *Compression* of the skul and brain; of which above. II. From the *Obstruction of the Passages*; and then there wil be present signs of Flegm. In the Cure; (a regard being had unto the whol body) Revulsions, head-purgers, &c. are to be administred; and then we may see what is further to be done, in the Cure of the Apoplexy.

V. Another is, *when the spirits are greatly disturbed*, as in case of a blow, fal, or any other accident whereby the Head is hurt, &c. Of al which see more in their own places.

Article, IV. *Of the Apoplexy.*

The Apoplexy is a sudden abolition of al the Animal functions, the breathing alone remayning, (and this likewise now and then exceedingly afflicted) arising from the streightness and shutting up of the Passages, (especially about the basis of the Brain) by the which the Animal Spirits are derived unto the Members.

The *part affected* is the Brain, not only according to the ventricles thereof; but likewise according to its pores, and especially neer about the inferior and hinder part thereof, where the Nerves begin and take their Original.

The SIGNS are (of an Apoplexy *imminent* and nigh at hand) sometimes none at al, sometimes a lightness and swimming in the head (which we usually cal the *Vertigo*) dimness of the Eyes, and wellnigh loss of sight, the Incubus or Night-hagg, a trembling of the whol body, the graring of the Teeth in sleep, an extream coldness of the External Parts, an abundance of Snot and Snivel, the heavines of the Head, &c. The signs of an Apoplexy *Present*, are, the abolition of the sense and motion, and this suddenly and with snorting; and by this it is distinguished from *Carus*; that it is without a Feaver and excitation, and so it is differenced from a *Lethargy*; that it is with a Relaxation and loosness of the Members, a ful pulse, and the Face reteyning stil its color; and thus it is distinguished from a *Syncope*, and the *Suffocation of the Womb*.

The CAUSE is, the streightness or narrowness of the turnings and windings, and of the pores of the Brain, (especially of the Basis thereof, and of the *Rete admirabile* therein,) as it effecteth a shutting up, or shutting in of the spirits. But from whence this proceedeth, we shal show further in the Differences.

CURE there is *None*, if upon a Difficult drawing of the breath a sweat ensue; if immediatly the sick persons strucken suddenly mute and dumb, and without snorting aloud, be not surprised and set upon by an acute Feaver, which happily might attenuate and dissolve the Pituitous flegmy matter, and likewise the flatulent Vapor. The Apoplexy usually, if not alwaies, it terminated, and endeth in a Palsie. It *Respecteth*, 1. *Preservation*, which preventeth and taketh away the Antecedent Cause, and this varyeth according to the Nature of the Differences. 2. It hath respect unto the *Cure spoken of in the several species*; which is *to be begun* with a Prognostick, (when we are to make a discovery whether or no there be any life in the Party) either by lighted Candles (the windows being shut) put as neer as may be unto the Nostrils, or else by a looking-glass clean wiped & put to the mouth of the party. It is *to be Performed*, 1. By a due and fit placing of the sick person, that so he may the more easily attract and draw in the Air, together with a light and gentle concussion and shaking up of the party (lest that by a more violent rowsing of him the matter should be dispersed al the body over) as also by a rubbing

bing of the extream parts with Salt and Vinegar. 2. By the Revulsion of the matter, by Cupping-Glasses imposed on the head, (which is indeed the only Remedy) by strong forcible Clysters and Suppositories; by opening of the Cephalick vein, or the common Median Vein, (without the least delay, and that likewise by several Repetitions, and not al at once, and yet al within the space of a very few hours) and also, lastly, by opening of the Jugular veins, according to their length. 3. The matter is dissipated and scattered by the use of Antepileptical waters, by which the Brain is exceedingly recreated.

The *Differences* of the Apoplexy are many and Various.

I. One is *Legitimate*, of which more in the subsequent differences.

Another is that we cal Bastard or *Spurious*; which ariseth either *from the Obstruction of the Arteries Carotides, and the Jngular Veins*, (of which see in *Carus*) or else from *Narcotick Vapors*, that stupifie and make dul the spirits; where Revulsion hath its place, the Evacuation of the matter fomenting and cherishing the Disease, and the breaking of the stupefaction by Castoreum with Vinegar.

II. Another is from the *Obstruction* of the Basis of the Brain; which is caused, I. Either from a *Flegmatick* and *thick Matter*, either dissolved by heat, or else driven forth by cold into the Passages of the brain. It *is known* by the tokens of a cold distemper. It *ariseth* from the same Causes. It *is Cured*, 1. By the *Evacuation of the peccant Matter*, by *Venesection*, after that by a strong and forcible *Purgation*, by *Errhines*, and Sternutatories put up in the form of a powder; among which that Nose-purger (the Latines and Late Physitians cal it *Nasipurgium*) of *Bartoletus* is much commended; by Fractions of the tongue and Palate with Treacle, or Mustard Seed, this last Boyled in strong Wine; by *Cauteries*, Issues, &c. Vomitories have here no place. 2, *By strengthening of the Brain*, by Cephalick waters, the spirits of black Cherries, the Essences of *Rosemary*, *Sage*, the Ballames of Marjoram, Amber, Rue, &c. II. Or else from gross and *thick Vapors*, with the which we ought to proceed, and to deal in the very same manner, as aforesaid.

Another is from *Compression*, which is Caused, I. Either from *Violent Causes*, as for instance, a Concussion, a Blow, a Wound; of al which see above. II. Or from *cold and moist humors*, (heaped up in the Brain,) by their constant and continual watering and moistening of the Brain, Rendering the substance thereof (that is naturally soft) by far more soft and loose; touching which see more in the former member of this same Difference. III. Or else from that which they cal *Flegmonodes, diathesis*, that is to say, an abundant store of blood al at once (as it were) rushing & thronging into the sourse and spring head (as I may so term it) of the Animal spirits. It *is known* by the signs and tokens of a Plethory; there is some wonted Evacuation suppressed. It *ariseth* from the same Causes. It is *Cured*, like as is that which is caused by a Flegmatick obstruction; Yet notwithstanding, in this case plenty of blood may be empryed forth of the veins.

III. Another is a *light* and gentle Apoplexy, which most commonly endeth in a Palsie of the one side or the other, and in which the breathing keepeth some kind of order.

Another is *Vehement*, in the which the Respiration or breathing is violent, unequal, inordinate, and intermitting.

Another is *strong*, in which the breathing is violent, there is also a snorting to be heard, and there appeareth likewise a froth which is but very little, if it be excited by the very humidity of the Lungs from some most vehement compression of the Heart; but very much, if it proceed from a pituitous or Flegmatick humor that is ful of Wind.

Another is the *strongest* and most dangerous of al, in the which the breathing is (as to the sense) altogether abolished.

Chap. 8. *Of the Symptomes of the Excrements of the Head.*

A Single Article, *Of a Catarrh.*

The Symptom of those things that are sent forth from the Brain (by way of Excrement) is a Catarrh, which is nothing else but a Difluxion or flowing down of some Excrementitious Humor (generated by reason of the Concoction of the Brain its being hurt) from the Head upon the parts that are situate underneath it, proceeding from distemper therein, or else from an over abundant Repletion irritating and stirring up the Expulsive Faculty.

The

The SIGNES are, of that imminent and neer approching, a ſenſible weight & heavineſs in the head, dimneſs of the eyes, a ſluggiſhneſs and drouſineſs of the ſenſes, ſternutation or ſneeſing, &c. The Signs of a Catarrh *preſent* and in being, a ſenſible feeling of a diſtilling humor, a cough, frequent ſneezing, &c.

The CAUSE is a *Phlegmatick* humor, which is ſomtimes altogether *inſiped* and taſtleſs; ſometimes *ſharp*, ſalt, acid or tart, diſcolored; it is ſomtimes *corrupt*, and peccant in its ſubſtance: which. 1. is *generated* either *in the brain*, by reaſon of its concoction hurt; or elſe by ſome fault of the very brain it ſelfe, or elſe by reaſon of ſomething amiſſe in the aliment; or from ſome other place, and ſent thither, eſpecially in thoſe that have either their brain cold, but their ſtomach and their Liver hot; or otherwiſe theſe cold, and their brain hot. 2. *it is moved*, either by the *expulſive faculty* irritated and excited; or elſe from cauſes *introducing heat*, that attenuate and make thin the humors, and withal open the paſſages; or elſe from Cauſes *producing coldneſs*; which either expel forth thoſe humors that are in the brain, or elſe (at leaſt) melteth and diſſolveth them by the fuliginous and ſooty quality that is reteyned, and likewiſe the heat therein augmented; or elſe from Cauſes *Concuſſiive* (as we may terme them) which over vehemently move and ſhake the brain. 3. *It floweth downward*, in regard *of the terme* or place *from whence* it deſcendeth; or elſe from the *parts* that *lye underneath the Scalp* or skul, and more eſpecially the ventricles of the brain it ſelfe; or elſe from thoſe *parts of the head* that ly *without the ſkul*, eſpecially under the skin of the Crowne of the head, where the extream parts or ends of the veins (by the face and the Temples creeping up (as it were, into the head) are terminated: in regard of the *terme* or place *to which* they flow, it is either unto the *internal parts*, the lunges, the noſtrils, the ſtomach, &c. or elſe unto the *parts external* and that not alone between the skin and the fleſh; but likewiſe throughout the veins and arteries, and alſo the Continuity of the muſcles, veins, and nerves.

The CURE is the *more Difficult*, if the Catarrhs be more frequent than ordinary, and withal more greivious; if they ruſh down with a kind of impetuouſneſs and violence; if they invade ancient people; if they are joyned and meet together with a pain of the head. *It hath an eye and regard*, 1. Unto the *matter generated*, which is forthwith to be evaccuated: and in the next place we muſt indevour to prevent the further growth and breeding thereof; and to this end, the diſpoſition of the part that ſupplieth and fomenteth it is to be corrected. 2. It reſpecteth the *matter* as it is now flowing; which is to be drawn back, intercepted, and the part receiving it to be corroberated and ſtrengthened. See more herof in the differences.

A Catarrh is (eſpecially) *divided* in a *three fold* manner.

I. One is from a *humor* both *cold and moiſt* and this, 1. either *copious*, and ruſhing downward with a greater violence; (and *then* veneſection in the external vein of the elbow is to be adminiſtred; leſt that from the reſt of the Body the humors ſhould flow hitherunto) or elſe, but *very little*, neither ruſhing down with any force at al; (and *then* in this caſe, eſpecially in old age, we ought to abſtain from veneſection) 2. or elſe, from a humor *thin* and wateriſh; and *then* it ought to be prepared moderately by thoſe remedies that incraſſat or thicken; as for inſtance, the decoction of *frankinſenſe*, of *Maſtick*, of *Betony*, and of Nutmeg: we muſt then purge but with medicaments of the gentler ſort, that ſo the peccant matter may not be too much ſtirred, and ſo diſperſed throughout the body; and ſuch remedies are as followeth, to wit, *Manna*, and Mechoacan: we ought in the next place to make uſe of particular evaccuations, by *Errhines*, if the Mother *flow into the Breſt and ſtomach*; but by gargariſms and Apophlegmatiſmes, if it flow unto the *eyes* and *noſtrills*; and then al things being ſo diſpoſed, that they may fix and inpede the impetuouſneſs of the Catarrh, the ſaid catarrh is then to be dryed up, and the head to be ſtrengthened, with the little roles of the *flower of ſulfur*, *yellow Amber pulverized*, tyed up in a ſmal bag, made warm in the ſpirit of malmſey, beſprinkled with ſome drops of the oyl of Amber, and ſo applied unto the crown of the head; the noſtrils and the Tempels having been firſt of al wel anoynted therewith; with the decoction of the China root, Saſſafras, &c. or otherwiſe from a humor that is *thick*; and then it is to be prepared with ſuch medicaments as warme and attenuate, viz. the decoction of *Hiſop*, *Rew*, *Oximel Simple*, *Oxymel* ſcillitick, (or with ſquils) we muſt then purge with *Agarick*, and the extract of the *Cochy* pils. Then we ought to evacuate particularly; where, among the

the Errhines, we preſcribe the Seed of *Roman Nightſhade* pulverized, and together with the water of Marjoram ſnuffed up into the Noſtrils out of the hollow of the hand. Then the Head is to be fortyfied and ſtrengthened; for which purpoſe we commend the *water of wild betony* diſtilled with Wine, of Hartman; as likewiſe the *Medicate wine* of the ſame.

Another is from a *hot humor*, which is, 1. to be removed and *taken away*, by Veneſection, or Cupping-glaſſes, leſt that (the Head being ſo hot) there ſhould be more of the Humor attracted. 2. It is *to be Prepared* with cooling Cephalicks, and ſuch as are moderately aſtringent. 3. It is to be *Evacuated* with Rhubard, &c. 4. The Fourth proceeding in the Cure ought to be as is before declared.

II. Another is that that *ruſheth* with *force* and *Violence*, which (beſides the diverſions, and thoſe other Remedies already ſpoken of) requireth alſo *Interception* by Medicaments that ſtop the flux, and incraſſate or thicken the thin Humor, and theſe to be adminiſtred, after Supper, about bed-time, without any waiting for, or expecting a concoction thereof: and ſuch are, *Treacle new made*, *Bole Armoniack* red and light, the bones of a *mans Skul* burned, *Opiate* Laudanum, Pills of the herb *Cynogloſs* or hounds Tongue, Pills *Aſajereth*, the *Arabick* Pills, Wierus his *pills*, Pils formed and made of Styrax Calamite; the Juyce of Liquorice, Frankincenſe, Myrrh, Opium, of each halt a dram, Saffron one ſcruple, with as much of Poppy and Rheubard as Shal be thought fit and ſufficient; the Trochiſques *of* Poppy of Mynſichtus. If the humor be talk, then Spike is to be added; and in thoſe that are *Aſthmatical*, al ſorts of Odoriferous ſuffumigations and perfumes are to be ſhunned. So ſoon as they awake in the morning, that that hath flown down into the Breaſt is to be Evacuated.

Another is *Suffocative* and choking, which with great violence floweth to the Lungs and Heart. Unto this we muſt with al poſſible ſpeed apply a Remedy by *Revulſion* by Clyſters, Frictions, Applications of Emplaſters (the hair being firſt cut ſhort, or ſhaven) that have in them a power to ſuſpend and keep off the Catarrh; inunctions and often anoyntings of the Noſtrils with the balſam of yellow Amber, Suffumigations, &c. In this caſe, likewiſe, there is not known a more preſent Remedy than a *Vomit*, in regard that it alſo driveth and caſteth forth whatſoever is ſtuffed and impacted into the Lappets of the Lungs.

III. Another is from a *Matter that is gotten together in the brain, through ſome default of the ſaid brain*,

Another is a certain *matter*, *that is* communicated unto the *brain*, either from a *colder ſtomach*, and a *Hotter Liver*, or elſe *from* ſome *other Bowels*. In the Cure of this, the parts commanding are eſpecially to be heeded, and due proviſion is to be made for them. And thoſe that find themſelves ſubject and liable unto more *frequent* Catarrhs, theſe ought *every month (a little before the new of the Moon)* gently to *purge* the Body, and more eſpecially if their belly be dry and coſtive. The Wine of Pope Adrian, which is ſo extreamly commended againſt Catarrhs, is Compoſed *of the Rinds of al the Myrobalans, together with ther Kernels firſt of al dryed, of each two drams and an half, Cinnamom one dram, Cloves, Galangal, Cubebs, Cardamom's, Grains of paradiſe, of each half a ſcruple, Red Roſes dry one dram and half, the flowers of Roſemary (or Anthos) and of Lavender, of each half a dram, wel beaten together, and then mingled with ſeaven meaſures of Wine.*

Title, III. *Of the Diſeaſes of the Eyes.*

Chap. 1. *Of the Affects of the Eye-Lids.*

WE have thus finiſhed the Affects of the Brain; the Diſeaſes of the Eyes, either they affect the *parts encompaſſing about the Globe* of the Eye, or the *conſtituting* the ſame; or elſe *they touch* and affect the *whol globe* it ſelf *of the eye*. Thoſe parts that ſurround and encompaſs the Eye are the Eye-Lids, the Eye-brows, and the angular fleſh at the corners thereof.

The Maladies and affects of the Eye-Lids are;

I. That we cal *Trachoma*, or a certain roughneſs of the internal part of the Eye-Lids. *It is known*, by the redneſs thereof, the itching, and (as it were) the ſticking out of Millet grains. *It ariſeth* from an aduſt humor,

mors, that is, Salt, sharp, and biting; and oftentimes likewise, from over sharp Collyries. *It is Cured* by the Evacuation of the body; by the averting and turning away of the matter by Repercussives; by the application of Topical, first those that we cal Emollient or mollifying, and qualifying the Acrimony of the peccant humor; and then by and by such Topicks as cleanse; as for instance, *Aloes dissolved in Rose Water, and Myrrh dissolved in a Womans Breast Milk*; which ought now and then to be intermitted, lest that they over forcibly make an impression of their strength upon the Eyes; and by rubbing of the Eye-Lid inverted and turned the inside outward with Sugar Candy, even until the blood follow. *It is divided* in a two-fold manner. I. Into that we cal *Dasutes*, in which the Eye-Lids are only red, rough, and itching; *Sycosis*, in the which there are sticking out as it were the smal grains or seeds of Figgs; *Tylosis*, in which the part being exulcerated contracteth to it self a sciffure, and callosity or an insensible hard and thick Skin; and that we term *Psorophthalmia*, or a scab of the Eye, which affecteth the whol Eye-Lid, and specially toward the corners of the Eyes, and this is Cured, (Universal and general Remedies being first premised) by a Liniment of Roses, and adding thereto a very little of Tuty prepared. II. It is divided into that which hath its original from the *blood*; in which the itching is not so great as in the former; from yellow *Choler*, in which there are smal pustules or pushes; from *Salt Flegm*, out of which there passeth forth more of the serous or wheyish humor; and lastly, from *black Choler* or Melancholy in the which that which cometh forth is discoloured, Black, and Blewish.

II. The second Malady and affect of the Eye-Lids, is that we cal *Emphysema*, a Tumor or swelling of the Eye-Lids; which happeneth, either from *external Causes*, to wit, the spiders touch, the stinging of the wasp, the Bee, or the Nettle (and then a Bee bruised and beaten to pieces is to be imposed upon the place) Treacle, and the Juyce Of Plantaine, are to be spread; and the place anoynted therewith. Or else from Causes *internal*, to wit, a *Hot humor*; (where the Ophthalmick of *Rhasis* hath its place, and is of singular use:) *A Wateriſh* and *Wheyiſh humor*, in Feavers of long continuance, watchings, and in the Cachexy; and here Fomentations of a Decoction that Mollifyeth and scattereth, are rightly and fitly administred.

III. The third Affect is termed *Coalitus*, when either the Eye-lids grow together one to the other, or else with the white, or the horny, or both those Tunicles of the eye. It is not to be *Cured without much difficulty*; if the Eye-Lids wholly grow together: but *seldom or never*, if they grow together with the *Cornea* (or horney) Tunicles: but *more easily*, if it stick only unto the eye in the extremity thereof and if it be only (as it were) agglutinated or glewed together unto the *Adnata* Tunicle. It *ariseth* either from an *Ulcer* negligently and unskilfully Cured (in the which whatever in the healing thereof might have been drawn forth, hath been agglutinated; and here in this case opening of the part affected taketh place) or else it hath its Original from a *Flegmatick*, and *Viscid* or clammy *matter* flowing unto the eye-lids; and here we are to make use of Revulsion by Vesicatories, and likewise Repulsion or driving back of the aforesaid matter.

IV. The *Cancer*, whether exulcerated, or not; of which we have sufficiently spoken before in the second Book.

V. *Inversion*, which we may likewise cal *Ectropium*, to wit, the turning inside outward of the lower Eye-Lid, *arising*, 1. from a *Resolution*, or Palsie; of which see elsewhere. 2. From the *Increasing* of the *flesh* in the internal part, which is either to be consumed by Medicaments, or else wholly to be taken away by section and cutting thereof. 3. From the *ill curing of the wound* or *Ulcer*; where likewise incision hath its fit and proper place. Or else it is that which we term *Lagophthalmos*, to wit, of the superior eye-Lids; *proceeding from the undue conformation*, or ill frame thereof, which in regard of its composure wil hardly admit of any Cure. 2. From the *custom of* Children, that in their Cradle are continually looking upwards; and this may be Remedyed and prevented by rolling and swathing about their Head with black clothes, whiles they lie in the Cradle. 3. From *Convulsion* and contraction; and this requireth Emollient Ophthalmick Remedies. 4. from a *Wound or Ulcer ill Cured*; in which case, either the Cicatrix is to be Mollified; or else there must be a Manual operation as the Cause, and as necessity shal require.

VI. That we cal *Hydotis*, (the Latins term it *Aquila*) or an increase of the unctuous sub-

ſubſtance in the upper Eye-lid, pouring forth (continually) a Humor, eſpecially in the morning betimes, before the light appear. It *ariſeth* (eſpecially in Children) from a ſerous or wheyiſh humor, that is fallen forth and gotten betwixt the Membranes of the Eye-lids, in the midſt whereof there is that Unctuous or Oyly ſubſtance. And this is either *Recent* and new begun, (and then it is ſometimes taken clean away with Faſting Spittle;) or elſe it is that that hath been of *long Continuance*, and included in its peculiar Membrane; and this requireth the operation of the hands.

Chap. 2. *Of the Affects, or things that are anniſs, in the Eye Brows.*

THe affects of the Eyebrows are;

I. That we cal *Hordeolum*, being a ſmal Tumor or ſwelling, which when it cometh unto a Suppuration is very like unto a Barly Corn; from whence it hath its aforeſaid denomination. It *hath its Original* from a Flegmatick Humor, thick, and mingled with blood. *It is taken away* by Barly maſticated or chewed upon an empty ſtomach, and ſo applied; or by the body of a fly (the head thereof being caſt away) if it be rubbed therewith. If it cannot be ſuppurated, then *Let it be cut* and opened.

II. That which we cal *Grando*, being a round little riſing or ſwelling, tranſparent, and movable thither. *It riſeth* from a matter that is hard, even as hard as a ſtone. *It is to be Mollified* and ſuppled with *Ammoniacun* diſſolved in Vinegar, and mingled together with the Fat of an Hen, or Turpentine and Wax.

III. That we cal *Madaroſis*, or a *Shedding of the hair*, which for the moſt part invadeth the party after Malignant Feavers. See more hereof before, in the ſecond book. If there be together preſent with it a Craſſitude or thickneſs, a Calloſity or inſenſible hardneſs, and a redneſs of color, and that the Eye-Lids ſwel, and become ſhining, it is then named *Ptilloſis*.

IV. *Trichiaſis* when preternatural Hairs growing up under the Natural hair and pointing inwardly, do prick the Tunicles of the eyes. *It ariſeth* from Humors flowing to the extremities of the Eye-lids, either by Reaſon of ſome long continued ſwelling, or elſe by reaſon of their being ſhut up, and, as it were, bound in there. *It is Cured*, 1. By the *Total Evulſion* or drawing forth of the peccant Humors (and an inunction or anoynting with the blood of green Frogs ought ever more to follow upon this ſaid devulſion:) 2. *By Coroſion*, by Corroſive Medicaments anoynted upon the place with due caution. 3. By *Section* or cutting, of which ſee further in the Practical Phyſitians.

V. *Phalaggoſis*, when (the Eye-Lids turning inward) the hairs appear not, unleſs the Eye-Lids be lifted up. *It ariſeth*, either from Pituitous Flegmy *humor* that load and make heavy the Eye-Lids; or elſe from the *exſiccation* or exceſſive drying of the *Cartilage*, together with a depreſſion of the Skin toward the eye brows, ever more following upon the former. For the *Cure* hereof you may likewiſe conſult other Authors.

VI. *Phtiriaſis*, or a great abundance of Lice, ariſing from Naſtineſs and Filthineſs in thoſe eſpecially that ſeldom or never waſh, and keep themſelves cleanly, and ſuch as uſe a naughty and corrupt kind of Diet, delighting themſelves in unwholſome food; and ſometimes alſo it hath its riſe and beginning from Contagion and infection. It is to be timely and ſeaſonably *Cured*, leſt that it excite and cauſe ſharp Defluxions. And here (in this caſe) the waſhing of the Eye-Lids, with the Decoction of Betony and Staveſacre, is much commended.

Chap. 3. *Of the Affects, and what is amiſs, in the Fleſh that is in the Corners of the Eyes.*

THe Affects of this Angular fleſh, are;

I. *Rhyas*, or a Diminution of the Caruncle, (Viz. The little piece of Fleſh) that is ſituate in the greater Angle or Corner of the Eye; upon which there flow forth involuntary Tears. It *ariſeth* either from *a defect of Aliment*; or elſe from *Corroſion*, and this either proceeding from Corroſive Medicaments, or elſe from the afflux of a ſharp and Tart Humor, and it happneth after the *Epiphora* or dropping of the Eyes with Rhume, the ſmal Pox and Meaſils, and deep Ulcers: or elſe from *inciſion*, which can by no means be Cured.

II. *Encanthis*, or the increment of the Caruncle according to the greater Angle or

Corner of the Eye. *It hath its Original*, either from the ill curing of the *Pterygia*, (as we cal them; they are certain distempers in the little wings and as I may so term them, of the Eyes:) or else from an overgreat afflux of *aliment*: if the Malady be great and of long standing, its not then to be Cured without calling the assistance of Chirurgery.

III. *Ægilops*, which is a little swelling, arising betwixt the greater corner of the eye & the root of the nose. *It proceedeth* from a certain matter driven forth to the Corner of the Eye. It is Variously *divided*; 1. Into *Anchilops*, which is a Tumor not yet broken, and without any inflamation; it proceedeth from a dul and sluggish Humor, (somwhat resembling honey, and a Pultise) that most commonly is shut up in the little bag thereof, and affecting the part, without solution of Unity; and it is to be quite taken away by Section or cutting, and 2. into *Ægilops*, properly so called, which is a swelling broken, and with an inflamation. *It is known* by the smart and pain that attendeth it, the change of its color, and the immobility and fixedness of the Tumor or swelling. *It hath its Rise* from blood poured and shed forth of the Temple Veins, the Forehead, or the Face Veins; and cheifly if there be a Concurrence of any external Cause. *It is Cured*, 1. With some *Difficulty*, especially if it siez upon the deeper parts thereof, if when broken it retire inwardly, because that it easily Corrupteth and spoileth the bones that lie underneath it; if it come neer unto the Nature of a Cancer. 2. Is cured *after the manner of other inflamations*. And for the most part that kind of *Fistula* they cal *Lacrymal*, followeth and attendeth upon it; which (as wel by Reason of the continual afflux, as the perpetual motion of the Eye) is for the most part to be accounted a Chronical Malady and distemper. In its *Cure*, before it be consolidated, we ought wel to look and consider, whether or no it hath contracted and gotten to it self a *Callum* (as they term it) or insensiblness, and whether or no there be any bone Corrupted which the roughness of the bone, or the sound and noise that it maketh wil soon discover.

Chap. 4. *Of the Diseases of the Adnata Tunicle.*

Article, I. *Of the Ophthalmie.*

THe Parts Constituting the Eye, either they are the Tunicles, Viz. *Adnata*, *Cornea*, *Uvea*, and *Aranea*; or else they are the Humors thereof. The Diseases of the *Adnata*, are, the *Ophthalmy*, *Pterygium*, *Panniculus*, and *Hypospha sma*; of the which two latter, this is common to the *Cornea* Tunicle, that unto the Eye-Lids.

The Ophthalmy is an inflamation of the Adnata *Tunicle, arising from a sharp blood distending the smal Veins thereof.*

The SIGNS are, redness of the Eyes, a flowing forth of tears, a pain, &c.

The CAUSE is *Blood*, which either alone, or else castigated by other Humors, sliding forth unto the part affected either by an afflux, or else by congestion is dispersed thorow the Veins, and so distendeth them.

The CURE is *Difficult*, if it arise in cold Regions, and in a cold time, because then the Members are more than at other times streightened and confined; if it infest and annoy little Children, because that it continually followeth from a tender and weak Head; if the pain presevere and long abide, because it argueth a matter either corroding, or vehemently distending, or suppurating; if it be by consent from the Membranes of the Brain, and the parts contained within the Skin; if there appear in the Eye smal grains of filth, because these signifie a slowness of Maturation. It is *more easie*, if it be by Consent from the external parts; if the tears be more abundant, and more smarting, because it cometh the sooner to an end; if the belly be quick, in regard that the loosness of the belly freeth the party from it. It is to be *accomplished*, according to the Method of other Inflamations. *It is to be noted in this*, that somtimes by Venesection the greatest *Opthalmies* are wholly taken away within the space of an hour. 2. That Vesicatories applied behind the Ears do very wel draw back. For this purpose there is much commended by Hartman the meat of the Herb Rocket in a quilted bag. 3. *Errhines*, (and those not overstrong and violent) are to be administred, if the sick person hath bin wont to evacuate the excrements of the head by the Nostrils. 4. Topicks are to be applied, (but yet not until the end of three whole days) and these are to be actually some that warme, without any the least mordacity or Carroding quality, wel cleansed and purified, and corrected by such repellers as are in their own propriety helpful; neither must they be too cool, nor too astringent, neither over dry; and those may presently be put unto

to the forehead, and the neck; and they are to be followed with Anodynes, which (if there be any fear of a greater afflux) are very fitly applied to the eye, from the very beginning. 2. the womens milk is every hour to be changed, leſt that after long continuance it contract a certain kind of acrimony from the heat of the eye. 3. Opium and opiate medicaments are by no means to be adminiſtred without great and urgent neceſſity. 4. Great caution muſt be had, leſt that there ſhould be any ſuppuration in the inward parts. 5. In the diet, wine and the uſe of baths (in the declination of the diſeaſe) may very wel and without danger be allowed and permitted unto the ſick perſon. A Cataplaſme of the *Crumbs of wheat bread and a roſted apple, with the breſt-milk of a woman, together with a little ſaffron and ſugar of ſaturn*, is exceedingly commended. And ſo likewiſe is the water that is made of the *juicy ſubſtance of Craw-fiſh diſtilled, two pints thereof, of Roſe water one pint, and Crocus metalorum half an ounce, infuſed altogether*: as alſo *of the waters of the eyebright, and Fennel, of each alike five ounces, with metalorum one dram*; *unto which* there may be added *a fit proportion of roſewater*. Among the diſcuſſives, *Sarcocol* wel waſhed, and the *true Tutty of the Arabians*, (which drieth without any kind of biting) obtain their place and uſe.

The *Differences* of the ophthalmy is threfold.

I. One is that we cal *Taraxis*, or a perturbation, *which is known* by this, that the eyes only appear to be hotter, with a certain redneſs in them, and without any great abundance of tears. It *ariſeth* from external Cauſes, to wit, 1. the *heat of the Sun, or the fire*: and then the Cataplaſme before mentioned may very fitly be applied. 2. from *a pain of the* head contracted from the ſuns ſcorching heat; and then likewiſe the aforeſaid Cataplaſme hath its place, unleſs haply general and Univerſal remedies ought altogether to preceed, and take the the firſt place. 3. from *wind, ſmoake*, and *duſt*; and the eyes are to be waſhed with milk luke warme, and ſleep to be taken thereupon. 4. from a *blow*, or a *fal*; and then blood ought immediatly to be drawn forth by opening a vein. 5. from the ſtinging of a *Bee, Waſp*, or *Hornet*; and then Repellers of the white of an Egge, the breaſt milk of a woman, &c. are to be impoſed.

Another is the *true* and genuine *ophthalmy*, which proceedeth either from hot, or from cold cauſes; and to this al that hath been before ſpoken doth properly and cheifly belong.

Another is that we cal *Chemoſis*, whenas the eye lids are as it were inverted, and turned the inſide outward, (neither can they be cloſed) and then there appeareth a ſwelling of ſomething that is white above the black of the eye; and this needeth and requireth the ſtronger ſort of remedies.

II. Another is *Periodical*, which kepeth its intervals; it is familiar unto hot & moiſt heads; & at length it caſteth the eyes into a conſumption. Another is that, that *keepeth not its periods*. Another is *Contagious*.

III. Another is *Moiſt*; which we have now moſt cheifly treated.

Aonther *dry*, in the which there is but a very ſmal flux of tears, and in the night-time the Eye-Lids contract an hardneſs. *It hath its original* from a humor that is not much in quantity, but very ſalt and nitrous. And it is either *with an itching* attending it; (which if tears gently flow forth, it is then called *Pſorophthalmia*; but if there be no tears at al, and that the eyes are only red, without any ſwelling, it is then called *Xerophthalmia*) or elſe *without an itching*, and with a certain hardneſs of the Eye-lid, and then it is termed *Sclerophthalmia*. The Cure hereof followeth the method of that before mentioned.

Article. II. *Of the Nail, or little wing, the web, and the Hypoſphagm of the Eye.*

I. *The Nail (or little wing, as they terme it) of the eye, or, as ſome cal it, the arrow, is a little membrane that is nervous, fibrous, and ſomwhat white, which proceedeth forth from the corners of the eyes (the greater of them eſpecially) and cleaveth faſt unto the* Adnata *tunicle*; *and is ſomtimes drawn forth in length even unto the* Cornea *tunicle*; *and very often (if it ſo much increaſe) covereth and over ſpreadeth the Pupilla or Bal of the Eye.*

This Affect needeth no SIGNS, ſince that it is evidently expoſed unto the view. It is diſcerned from the Lachrymal fleſh by its white ſhining brightneſs.

The CAUSE is Blood, mingled togeather with thick, viſcid and clammy Humors, flowing down from thoſe parts that are contained betwixt the Skul and the Skin, and bringing upon the place a certain kind of Scabbineſs or ſcurfineſs, which while the nutritive faculty endevoureth to render and make equal, it

produceth an increase of the membrance beyond the ordinary course of nature.

The CURE Requireth. I. The *Premising* of the general and *universal remedies*. II. the *extertion and extirpation of the nail*, after it hath been for a while fomented, either with a decoction, or some temperate distilled water. Among the several sorts of medicaments, there is commended the pouder that is made and prepared of *Egg-shels*, and then cast upon the eyes; the *Medicinal* stone of *Crollius* in the water of roses and Eye bright; the specifick of *Hartman*, of the fish *Lucius* we cal it the *Luce* or *Pike*; the same Hartmans water *of the whits of Eggs*; and other such like remedies; which if they be sharp and piercing, ought to be quallified and corrected with *Tragacanth*, and the like; and exceeding great Caution must be had, that the tunicle Cornea be not touched. III. It requireth *Chyrurgery*; of which you may see further, if you consult Authors upon this very subject. IV. A *Diet* in which there ought to be an abstinence from wine and meats that generate store of vapours.

It is many wayes *Divided*

I. One is that we cal *Albicans*, or tending to whiteness; Another there is that *tendeth* to a *blackneß*, which is not to be removed by any remedies whatsoever. II. Another *Recent* or new, which may soone and very easily be dispersed, and quite taken away. Another is *Inveterated* and old, unto which if a thickness chance to accrew, and be added thereto, it ought then to be cut out: yet sometimes notwithstanding it sticketh so close and pertinaciously unto the *Adnata* tunicle, that it cannot be taken away thence, no not by the Chirurgeon himselfe without manifest hazard and danger of hurting the eye. III. Another is that which is produced only *unto the* Cornea tunicle, and no further. Another, that is *extended along even unto the very pupilla* or Eye-bal; and this if it be taken away, it indeed wholly freeth the eye from fluxions; but if a Cicatrix or star be left remaining it very much hindereth the sight of the eye. IV. Another is *Cancerous* and *Putrid*, which admitteth of no Cure at al; Another, that is not as the former.

II. The Pin or web of the Eye is a certain red substance like unto a smal piece of cloath, arising from the exuberancy and over great abounding of blood, in the Exterior veins of the Eye.

There is here no need of SIGNS. There appeareth (especially in the superficies of the tunicle *Adnata*) as it were a fleshy web, with an itching, a pain, an offending of the eyes by the light, the sight obscured, or quite and clean taken away.

The CAUSE is a blood derived unto the eyes, either simple and alone, or mixed, either by the way of fluxion or of congestion; and this either by the external vessels, and then the forehead swelleth a little; or otherwise; by the internal vessels, and then there is a certain pain extending it self even unto the very roots of the Eves.

The CURE is performed, I. *By the Use of Universals*, or remedyes in general. II. By *Abstertion*, by those things above mentioned. III. By *Chirurgery*; touching which those Authors that are extant upon this Subject.

III. The Hypospagm, *or Sugillation (as they cal it) is a blemish or spot, reddish or black and blew, arising from blood poured forth of the veins being opened, and common to the tunicle* Cornea.

There is no need of SIGNS, forasmuch as the malady or Evil is easily discovered by the very beholding of it.

The CAUSE is whatsoever may open the veins, whether it be External or internal; as shal be further shewn in the differences.

The CURE is *Easie*, in the beginning, It *is performed* (Universal or general remedies having gon before) if the afflux be greater than is usual, *by discussives*, at first such as are more gentle, and corrected by astringents; but afterward, those that are stronger and more forcible, and yet withal such as are void of acrimony and tartness, left that there should more of the blood be enticed and drawn forth unto the part affected.

It *is Divided* three manner of waies.

I. One is from *Causes External*, a blow, clamour, and sounding of trumpets; in which we must presently have recourse unto *Topical* remedies, to wit, the decoction of the flowers *of Melilote*, and of *Roses*, *Fenugreek seed*; Colliry composed of the *blood of Pigeons, taken out of their wings, two drams thereof; the breast milk of a temperate Woman half an ounce, and frankincence one scruple.* Another is from *internal Causes*, to wit *either great store of blood*, (where Venesection must by no means be ommitted) or else from the extraordinary *great heat thereof*; and then the spot or blemish tendeth unto a Citrine colour. We must withstand and oppose the inflamation by the *white of an Egg wel shaken together*: if

there

there preſent any Pus or filthy purulent matter the ſame is to be leſſened by a Collyry compoſed of the *Muciluge of fenngreek, with fennel water and honey of Roſes.*

II. Another is *Recent* and new beginning; in which the blemiſh is of a red colour. Beſides the Topical remmedies above mentioned, *the tops of hiſſop* boyled in ordinary and common water, tyed up in a little bage, and ſo applied, is of ſingular uſe and bennifit in diſcuſſing the peccant matter. Another is *inveterate* and of long ſtanding; in the which the ſpot or blemiſh is black and blew. And for this we uſually preſcribe (as moſt proper and convenient) a Colliry compoſed of *the Juyce of the greater Selandine and Carduus Benidictus, of each halfe an ounce; of the fat of the bird they cal Quœſtula* (or Queiſt) *liquified and diſſolved, two drams, and of mirrh half a ſcruple*; as alſo *the Root of ſigillum Solomonis* or Solomons Seal, well ſhaken together, &c.

III. Another is, *When blood is caſt forth either into the Adnata* or the *Cornea* Tunicle. And another, *When* it is caſt forth *into both theſe Tunicles* at once, and together; and then *all the Objects* that the Sick perſon looketh upon ſeem to be of a color tending to Redneſs.

Chap. 5. *Of the Diſeaſes of the Tunicle Cornea.*

Article, I. *Of Craſſities, Nebula, and Albugo.*

THe Diſeaſes of the Tunicle *Cornea*, are, Craſſities or a certain kind of thickneſs, *Nebula*, (or a little Cloud) *Albugo*, (or a white ſpot in the Eye) Puſtules or Puſhes, *Ulcers*, *Wounds*, and *Pain*.

I. *Craſſities* (or thickneſs) *Is an extream drying of the ſubſtance thereof*, and therewithal there Joyned a certain Corrugation or winkling. *It is known* by this, that (as it were) in the ſuperficies thereof there appeareth a little bloud, and the ſick perſons ſee as through ſmoak. It *ariſeth* either from the incautelons and careleſs *Application* of *Cold* Remedies, and this eſpecially after an Ophthalmy; or elſe from Groſs and *thick humors*, that inſinuate themſelves. In the *Cure*, there is to be commended the *Juyce* of *Salendine* preſſed forth, and inſtilled into the Eyes drop by drop.

II. *Nebula* or the little cloud, as the *Color of the Tunicle Cornea, altered and changed by a ſubtile Humor flowing forth.* That which is prevalent in this eaſe, is the powder of *Margarites prepared*, in the water of Roſes and Fenel; and the *Cataplaſm* of *Platerus*, in his ſecond Book and 19. Obſervation.

III. *Albugo* or (as they cal it) *Lentoma, is a white ſpot, rendering the Cornea* (tunicle) *ſo thick, that there is denied al manner of paſſage unto the viſibl ſpecies. It ariſeth* either from a *Cicatrix* (or ſcar) after a wound, or an ulcer; and then the *Cure* is *difficult* in thoſe that are ancient; but more eaſy in children and young people. It *is performed*, 1. By the appliing of emmollents or mollifiers. 2. By abſterſion, where the watter of *Roſemary flowers* dropped into the eyes, and the fat of the *fiſh Muſtela*, have their place and uſe. Or elſe it procedeth from *flegm gathered together betwixt its lapps*; and then the *Cure* is eaſy. And to this end the purpoſe excellent good is the colyry that it prepared of *Lapis Calaminaris* thrice burnt and *twice extingwiſhed in wine vinegar, one ſcruple hereof, Myrrh, lead burnt and waſhed, of each half a ſcruple, of Oriental Saffron five grains, opium eleven grains*, of burnt braſs four ſcruples, *the decoction af fenugreek* one ounce; al theſe throughly beaten together and incorporated upon a marble ſtone or Porphyry.

Article. II. *Of the Puſtules and Ulcers of the tunicle Cornea.*

Puſtuls are little riſings, that are common to the Adnata and Cornea tunicles. They are known by the very ſight in magnitude equalling the grain or ſeed of a millet, of a black color, of an exact roundneſs, and in that they exhibet not a white circle in the bottom; by theſe they are diſtinguiſhed from the falling forth of the *Uvea* (the fourth Membrane, or thin Skin) of the Eye. *They ariſe* from a Humor that is ſharp and ſerous or Wheyiſh, lifting up the Tunicles. They are *Cured* the *more eaſily*, if they be in the *Adnata* Tunicle; but *with more Difficulty*, if they be nigh unto the *Pupilla* or Bal of the Eye: and *not at al* by any means poſſible, if the *Cornea* be broken into the internal part. They are divided in a twofold manner, *Like as the Ophthalmy*. I. *Some* are with an inflamation, which are Cured like as other inflamations. *Sacchar-um Saturni* (or, the Sugar of Saturn) with the

water

water of Eye bright, is (here) of al Remedies the best and cheifest. *Others* from a wateriſh Humor, which require Exſiccating and drying Remedies, as for inſtance, *Tutia Lapis Calaminaris*, &c. II. *Others* are Superficial, called *Epicaumata*, which appear in a darker color. *Others* more deep, under the ſecond or the third film, (called *Encaumata*) which by reaſon of the whitneſs of the *Cornea* Tunicle ſeem to be the whiter; and are therefore dangerous, becauſe they can and often do eat through the whol *Cornea* Tunicle.

II. *The Ulcers of the Cornea Tunicle ariſe, ſomtimes from External, and ſomtimes from things Internal, or that flow in, or that are heaped up together*; And they have various and different names given them, (by which they are ſufficiently known and diſtinguiſhed) according to the variety of Circumſtances. That is called *Bothrion*, that is hollow, narrow, and hard. *Koiloma*, that which is broader, but not ſo deep. *Argemon*, that that ariſing in the External party colored circle of the Eye, and being of ſomwhat a Red color round about the external part of this circle that is particoloured, but white about the internal part thereof, Comprehendeth likewiſe within it al things that ſurround and encompaſs it. As touching the *Cure*, it is to be wel obſerved, that Medicaments are to be applied and put to the Forehead, and alſo unto the Temples, (that ſo the influx may be impeded, and that the ſaid Medicaments ought to be gentle and temperate. The *Ophthalmick Water of Mynſichtus* is (here) by ſome exceedingly extolled.

Article, III. *Of the Wounds of the Cornea* (Tunicle) *and the pain of the Eyes.*

The *Wounds of the Cornea* (in general) require, 1. *Evacuation*, and that more eſpecially by Veneſection. 2. *Revulſion*, (that ſo the inflamation may be prevented, and hindered, and the pain mitigated) by Cataplaſms impoſed upon the Eye-Lids alone, that ſo both the Eye and the Eye-Lids may be opened. 3. *By Conſolidation*. And for this purpoſe, there is very much commended that part of the white of an Egg which the Germans cal *das Tuchen*, and the Italians *Galatura*, wel beaten together; as alſo the *Red Oyl of Saturn*. If we conſider the *Differences*, 1. *Somtimes* the *Cornea* alone is wounded; but then again *ſomtimes* together with it the Eye-Lids likewiſe; where care muſt be taken that they be not glewed together with the Eye. 2. *Somtimes* the wounds do not penetrate ſo deep. *Somtimes* the *Cornea*, is broken, and then there flows forth a Watery Humor, which likewiſe happeneth in Ulcers. And then, if the wound be Narrow, it hath in it the leſs danger.: but if the *Uvea* (Viz. The fourth Membrane, or thin Skin of the Eye) fall forth, it is altogether incurable. The *Cure* is one and the ſame with that of a wound and Ulcer of the Eyes.

II. *The pain of the Eyes*, chanceth unto and befalleth the Eyes, cheifly and eſpecially by Reaſon of the External Tunicles. *It is known* by the Relation of the ſick party. *It ariſeth* from Cauſes that Excite and haſten the Solution of Unity. *It is Cured* by taking away the Cauſes. It *is Mitigated* by the Whites of Eggs, the Pap of a roſted Apple with Sugar, Camphire, Saffron, Roſe-water, and the Breſt-Milk of a Woman. We muſt (here) beware that we preſcribe not the uſe of any *Opiates* whatſoever.

Chap. 6. *Of the Diſeaſes of the Uvea.*

Article, I. *Of the falling forth of the* Uvea, *and the* Dilatation, *Widneſs and Narrowneſs of the Pupilla, Viz. The Bal or Apple of the Eye.*

THe Diſeaſes of the *Uvea* (one of the Tunicles in the Eye) are, *the falling forth* of the ſaid *Uvea*, *the Dilatation of the Pupilla*, the Narrowing and contracting of the ſame, as alſo the *Suffuſion* thereof.

I. *The Uvea falleth forth, when the Unity of the Cornea is Diſſolved*, either by wounds, or by Ulcers. *It is known*, and *diſcerned* from Puſhes, from hence, that the part that falleth forth is either black, or Skie-colored, and in the bottom of it exhibiteth a white Incle, (which is from the Lips of the *Cornea* eaten through) and the Pupilla, or Eye-bal, appeareth as if puld aſunder in ſome one certain part thereof. *It is Cured* by Medicaments that are Aſtringent without any aſperity; and if it be not removed by theſe, then it is requiſite that we make uſe of the inciſion knife. For the *Differences* ſee further in *Æginela*.

II. The *Dilatation of the Pupilla*, called *Mydriaſis and Platucoria*, *is when the Pupilla*

Pupilla is inlarged (above and beſides the ordinary courſe of nature) toward the iris or particoloured circle of the eye. It *is known* by this, that the ſick perſons (either by reaſon of too much of the External light breaking in upon the eyes, or elſe, in regard that becauſe of the falling of the Sun beames in an oblique manner upon them, (theſe oblique wayes being weaker than thoſe that are perpendicular they are not able to ſee and diſcerne ſo clearly and acutely, when they would look upon any object, they then a little cloſe their eyes, and the one of them being ſhut, the pupilla of the other cannot be dilated. It *ariſeth* from the Extenſion and ſtretching out of the *Uvea*, (of which this ſaid Pupilla is the hole or inlet) either by reaſon of external, or elſe internal cauſes. For the *Cure* hereof, it muſt be ſought for in the differences. It *is divided* in a threefould manner. I. *One* is native, and ſuch as is contracted from the very birth. *Another* Adventitious, and happening accidentally. II. *Another* is from external Cauſes, as a blow, or a fal from on high, &c. which if it be altogether without any inflamation, is eaſily and ſoon cured but not ſo if it be accompanied with a rupture of the *Uvea*. *Another* from Cauſes internal, which are particularly expreſſed in the following difference. III. *Another* is from ſiccity or drynes extending the *Uvea*, (like as we ſee in skins or hides that are perforated) and this is not to be cured without ſome difficulty. The beſt remedy in this caſe is Goats milk, if the eye be wel waſhed therewith and as it were drenched therein. *Another* from humidity; the cure whereof is ſo much the more eaſie, if it chance not after an extream and Vehement pain of the Head. It is performed (univerſal and general Remedies being firſt premized) by the drawing forth of blood out of the Temple Veins, and the Veins in the corners of the Eyes, and by the applying of Cupping-Glaſſes in the hinder part of the Head, and Leeches behind the Eares; and likewiſe by the Uſe of Reſolving Medicaments (among which ſalted Water is much commended) that have in them but little of aſtriction. *Another* from blaſts & blowings, (which happeneth unto Trumpeters) & theſe flatulencies or windineſſes are to be diſcuſſed & ſcattered, as aforeſaid, in affects of the like Nature.

III. *The ſtraightneſs or narrowneſs of the Pupilla (which they term Myoſis) is when it is rendered and made narrower than naturally it ought to be.* It *is known* by this, that al objects whatſoever that the ſick perſons look upon ſeem bigger than indeed they are; that the viſible ſpecies being conveied in through a ſtraight and narrow inlet, may be and are dilated in that broader ſpace neer unto the Cryſtaline humor. *It ariſeth* from the contraction of the *Uvea*. *It is Cured*, according to the Nature and quality of the differences. *It is Divided* according to the diverſity of the Cauſes. *One* is from overmuch humidity, contracting the *Uvea* from the Circumference towards the Center; For the which, thoſe Medicaments that are exſiccating and drying, (ſuch are Rew and Selandine) are a very fit and propper Remedy. *Another* is from a defect of the watery humor; and then the Patient wil ſee and diſcerne better in the room that is obſcure and dark; becauſe that the viſible ſpecies are more aptly and ſpeedily Conveyed unto the Cryſtaline humor. In this caſe an aliment and ſupply is to be attracted and drawn unto the part, by applying of milk and ſweet water unto the head. *Another is from* a more ſcant and ſpare afflux of the vifive ſpirits unto the ſaid Pupilla.

Article. II. *Of a Suffuſion.*

A Suffuſion (otherwiſe termed Hypochyma*) is an obſtruction of the Pupilla, hindering the ſight, and cauſed by a humor conſiſting in the eye, and reſiding in that part thereof.*

The SIGNS are divers, according to the quality and Condition of the riſe and original, of the augmentation, and of the perfection or Period thereof; and they ſhal ſeverally and apart be explained in the differences.

The CAUSE is a humor, either ſincere and ſingle; or elſe mingled; whether it be there collected, or tranſmitted thither by the veines of the tunicles, the *Uvea* tunicle, or the Nerves. It *is collected* moſt eſpecially in thoſe eyes that are great and ſticking out (we term them Goggle eyes) in regard that the viſive virtue, when it is diffuſed in a wide ſpace, is the more infirm and weak, and the laxiey of the waies or paſſages affordeth a very facile and eaſie entrance.

The CURE *is difficult*, if it chiefly happen from a feaver, or ſome extraordinary vehement pain of the head; if it chance unto yong childeren or old aged people; *and none at al*, if the ſuffuſion be black; if the ſick perſon diſcern not the light. It *is wrought* (if at al) I. *By the drawing forth of the obſtructing matter* by purging Phlegmagogues; and eſpecially *hiera*, and the *electuary* that they cal *diacarthamus*; but before theſe we may premiſe and adminiſter

niſter preparatives. II. By *revulſion* of the *ſame* matter by Cupping-Glaſſes, Veſicatories, &c. III By a *diſcuſſion* of the *ſaid* matter by Topicks mingled with Emollints or molliſiers, and the clearing and cleanſing of the eyes. And here (for this purpoſe) there is commended the water called *aqua Joelis*, the remmedy of *Bovius*, formed of the gal of a Cock, half an ounce, the blood of a mouce three drams and a half, and ſo made up (like unto a Colliry) with the breaſt-milke of a woman: or elſe water of mans dung, known by the name of *aqua ſtercoris humani Elambicata, with the gal of a Weaſel, and likewiſe of a hare, ſaccharo caudi roſato, and margarites prepared.* IV. By *Chirurgical* operation; of which we are (for further ſatisfaction in this point) to conſult thoſe Authors that have treated at large uppon this ſubject.

The *Differences* of a Suffuſion are Various.

I. *In regard of its Situation*; 1. *One* is in the Center of the *Pupilla*, which Repreſenteth the Objects as though they came and paſſed through the Windows; and this ought not by any means to be attempted by the needles point, leſt that the whol *Pupilla* be filled with the peccant Humor flowing thereunto. 2. *Another* reſideth between the *Uvea* and the *Cornea* Tunicle; and *then* the *Pupilla* is evidently ſeen to be extreamly obſcured and darkned; and the *Pupilla* is of neceſſity dilated by Reaſon of the Humor that diſtendeth it. 3. *Another* reſideth betwixt the *Uvea* and the Cryſtalline humor; and then the oppoſite unto the former do manifeſtly appear. 4. *Another* is ſeated in a deeper place; and then the *Pupilla* is very narrow and much ſtreightned. *Another* is ſituate in a place leſs profound and deep, and then the ſaid *Pupilla* is larger and wider.

II. They differ *in regard of the degrees*; for *One* is but new beginning, and then there fly to and again before the Eyes as it were Gnats or ſome certain other dark and dim appearances. *Another* is Augmented; and then the color of the *Pupilla* appeareth like unto that we cal ſea-green; or elſe it is like unto the Air when ful of little Clouds. *Another* is Perfect; in which the ſick perſon diſcerneth nothing at al; and then the *Pupilla* appeareth to be of a white color.

III. They differ *in regard of their Cauſe*: 1. *One* is from a thin matter and ſuch as is Fluxile (as for moſt part it is wont to be in the beginning) and then, if there be preſent a Plethory, we may preſcribe Veneſection, and cauſe a Vein to be opened. *Another* is thick, clammy, & tenaceous and then we ought to abſtain from bloodletting. 2. *Another* reſembleth the cleer & pure air; as alſo it reſembleth ſilver, Playſter or Parget, and Margarites; and this kind leaveth ſome Hopes of a Cure. *Another* is black, which is by no means to be Cured, no not by the Needle. *Another* is Green; which is likewiſe altogether incurable.

IV. *Another* is that which is truly and properly ſo called; (and of this al that hath hitherto been ſaid upon this ſubject ought to be underſtood;) which ſiezeth only upon one of the Eyes; or elſe if both, yet not together, not a like, and whoſe Symptoms are conſtant and continual. Another is Baſtard and *Spurious*, which carryeth it ſelf quite contrary unto the former; and ariſeth from a Vapour aſcending from the imferiour parts; and is wholly taken away, when the Affect is removed.

Chap. 7. *Of what is amiſs in the Humors of the Eyes.*

THe Humors that (together with the Tunicle) conſtitute the Eyes are in number three, to wit, the *Watery*, the *Chryſtalline*, and the *Glaſſie* Humor.

I. The *Faults* or things amiſs in the *Watery* are eſpecially four. I. The *Diminution* thereof, by reaſon of heat, dryneſs overmuch Evacuation; which in regard that it is conjoyned with the dryneſs of the whol body, is there not to be Cured without much difficulty. II. *Effuſion*, when it is poured out, which happeneth in the Rupture of the *Cornea*; and then a wound or Ulcer went before; the *Cornea* Tunicle lieth underneath. This Humor is ſomtimes bred again of its own accord. III. A *Craſſitudo* or thickneſs, ariſing from the admixture of thick Humors or Vapors; and then the Humor appearth not to be altogether ſo cleer as it is wont; and certain reſemblances or babies (as we term them) fly up and down before the Eyes; &c. IV. *Obſcuration*, and *another kind of Color*, by Reaſon of the Humors that are therewith mingled. Theſe things may be wel known at the firſt ſight and by the very view.

II. Thoſe things that are amiſs in the *Cryſtalline Humor* are eſpecially theſe. I. *Glaucoma*, when this Humor is turned into a Grey color. *It is known* by this, that about the *Pupilla*

Pupilla there appeareth a notable & manifest whitness somwhat deeply seated, and al things are seen as it were through smoke and little clouds. *It ariseth* from exsiccation, which happeneth either by Reason of Age, or else from some other Cause. II. *Solidity* and *Obsturity*, which therefore needeth a greater illumination; from whence proceedeah that we cal *Nuclalopia*, or a Nocturnal blindness; with the which such as are affected, see indifferently wel in the day time, but more obscurely and dimly after sunset, and in the night time nothing at al. III. The *Scituation changed*, which is wont to happen many waies. 1. *Upwards or downwards*, from whence the incruciation (as they cal it) or Crossing of the Opticks is dissolved; or else the Axes of the Pyramids thereof are fixed in a double plane, and so al things appeare double, 2. *At the sides*, and then things appear more on the right side, or on the left, than indeed they are. 3. *Towards the middle and the Center*; from whence it is that those things that are nigh at hand are rightly seen, but things more remote are not distinctly enough discerned. 4. *Beyond the middle and Center*, toward the Optick; and then those things that they desire to discern, they are constrained of necessity to lay them close to their Eyes. *Towards* the *Pupilla* or Bal of the Eye; and then they rightly discern those things that are remote and at a distance from the Eyes.

III. Those things that are amiss in the *Vitreous* or Glassie *Humor* are, I. The *Augmentation* thereof, by which not only the Pupilla is the more dilated, but likewise the Crystalline Humor is obscured, and hath as it were a mist and shadow, cast before it, and the Spirits also much dulled and blunted. II. *Diminution*; from whence the Tunicles are wrinkled up together, the *Pupilla* contracted, and falling down above the Crystallaine Humor and abbreviating the space betwixt it and the Tunicles (in the which the external splendours meet together) produceth the very like affect as in those that wink with one or both Eyes that they may the better behold the bright body of the Sun. III. A *Crassitude*, or thickness, which ariseth either from the mingling together therewith of an humor, or else from the admixture of some other adventitious substance.

Chap. 8. *Of those Diseases that infest and annoy the Globe of the Eye.*

THose Diseases that infest and affect the Globe of the Eye, are, *Atrophy*, *Procidency* or standing out, and *Strabismus* or Squinteyedness; unto the which may be added out of the Symptoms, the *Debility* or weakness *of the sight*, and stark blindness.

I. *Atrophy* is then, when the parts of the Eyes consume and wast away. *It ariseth* most especially from excessive Evacuation, and over great exsiccation. *It is Cured*, by those Medicaments that humectate and moysten (and cheifly the Breast-Milk of a Woman) layed therein.

II. *Procidency*, when the Eye either stands out of its Orb in an unusual and unbeseeming manner; or otherwise falleth out so (at least) that it cannot be covered with the Eye-Lids. *It ariseth* from Causes as wel External (a blow blowing of Trumpets, strangling, Hard Labour in Child bearing, &c.) as internal, to wit, the resolution of the Muscles and Nerves, a Tumor thrusting forth the Eye, &c. In the *Cure* we must have regard. 1. Unto the *putting back* of the Eye into its proper seate, or if that may not be done, then wholly to take it away. 2. Unto the *Deteining* and keeping of *the same* in its place or seat, by Fomentations made of Astringents, to wit, Roses, Pomegranate flowers, and *Acacia*. Neither must we forget to let blood; and the inflamation is likewise to be repelled and driven back. If Resolution be the cause thereof, then Apophlegmatisms are very available.

III. *Strabismus* is then, when the *Pupilla* or bal of the Eye declineth from the middest, so that it appeareth more in one part of the Eye than in the other. *It ariseth*, either from an *ill* frame and *composure* at the first from the very Womb, and then it is not by any means to be Cured: or else it chanceth from an *ill custom*, as it is usually to be seen in infants: and in this case Vizards or Masks are to be put upon the Face, having in them a place and holes made fit for the Eyes to look forth at, that so by them the visive raies may be sent forth. Or else from a *Convulsion* or *Resolution* of the *Muscles*, and then some Disease went not long before.

IV. The *Weakneſs* of *the ſight*, and *Blindneſs*; they differ at leaſtwiſe in the greatneſs of the Cauſes. *It ariſeth* either from the fault of the *Brain* that maketh and yieldeth not a ſufficient ſupply of the Animal ſpirits (from whence likewiſe the reſt of the ſenſes are moſt commonly affected) *or elſe* from ſome thing amiſs in the *Animal ſpirits* themſelves, which ought to be bright and ſhining, thin, and good ſtore of them. And theſe are to be corroborated with thoſe Medicaments uſually termed *Oxydorcicks*; among which there are the water *of Roſemary* with Sal Gem, the water of the diſtillation *of Junipers*, *Nutmeg*, *Myrobalans* thoſe of them called *Chebulæ*, &c. *or elſe* from ſome default in the *Optick nerves*, which are either too much ſtraigtened, and *Narrow*, (from whence proceedeth that we term *Gutta Serena*, (in the which there is not any thing at al to be taken notice of as amiſs in the Eyes, unleſs it be that the *Pupilla* appeareth blacker and larger:) or elſe they *are broken, or writhed together*. Or elſe, laſtly, from ſome fault in the Humors and *Tunicles*; of which enough hath been ſpoken in what went before.

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I. *One* there is from Externals, as to inſtance, from ſomwhat fallen thereinto from a Wound, &c. which are al to be known by the Relation of the ſick perſon. *Another* there is from Cauſes internal; to wit, a *Diſtemper* either without or with matter; and this either cold, (in which the *Juyce of Onions* with ſome kind of liquor is very helpful) or elſe hot, in which the *Breaſt-Milk* of a *Woman* together with the Juyces of cooling Herbs do much avail and profit: a *Wind*, for the which thoſe things are uſeful and proper, which in the following diſcourſe touching the noiſe and ſound in the Ears, remain further to be ſpoken of: from an *Inflamation*, of which enough hath been above ſaid: or laſtly, from an *Ulcer* and corrupt matter, of which like-

wise sufficiently in the same place.

Deafness is an Abolition of the Hearing, differing from that we cal *Barucoia*, or Hypocophosis, (in the which a man not without much difficulty heareth and perceiveth sounds although at a just and meet distance) only in regard of the greatness and intensiveness of the Cause. *It ariseth* from the default of those things that concur to the constitution and perfection of the Hearing, and 1. Of the *Brain*, in that it either produceth no Animal spirits, *or else* doth not transmit them, by Reason of some peculiar Disease. II. Of the *Auditory Nerve*, which hath no passage or conveyance for the said spirits, *either* by Reason of some thing amiss in its very frame and formation; (and hence for the most part those that are deaf are likewise dumb; and this kind of Deafness is altogether incurable) *or else* by means of some obstruction, thickness, &c. III. Of the *Animal Spirit* it self, which *either* is not at al generated, by reason of some extraordinary great distemper of the Brain; *or else* is abolished, by reason of the extream straightness and narrowness of the passages: *or otherwise* it passeth not through, by Reason of somthing amiss in the Nerve: *or else* it is but very little, and that likewise over thick and impure, by Reason of the Ambient Air, or from other Cause. IV. *Of the Inbred air*; which *either* faileth, (to wit, by Reason of a wound, or an Ulcer, &c.) and passeth forth; dissipated and Scattered by noises and sounds, the contusion of the Head, or a Vehement affect of the Brain; not restored and made good again, by Reason of a fayling and want of Nourishment: *or else* it is impure, either from some matter, sent thither from the brain, or from elswhere. V. Of the *Auditory Passage*, which *either is* formed amiss. *Or else* stopped, and that *either* but in part, and then there is only a diminution of the Hearing; *or else* wholly and altogether, and hence it is that the external sound is not at al perceived, but then there is another new one produced by the Air left remayning there; *or else* from things External falling or sent thereinto; *or otherwise* from internal Humors, filthiness and impurities, Ulcers, &c. *Or else* it is condensed and thickned, by an Inflamation, some smal Tumor or rising, &c. *Or else*, lastly compressed and thrust together, by Reason of some fracture of the Bones. VI. Of the *Tympanum* or drum, which may be broken, loosened, rendered thicker or drier, extended, and otherwise infested by an inflamation arising about or neer unto it. VII. Of the *three little Bones*, which either are not rightly formed, or else are moved out of their place. And yet notwithstanding *most frequently* from a *Pituitous* and Flegmatick or Cholerick humor, which happeneth in acute and violent Feavers; and sometimes it discovereth that the matter is carryed forth unto the exterior parts. In the *Cure* hereof we must see and look wel to it, that the Medicaments be applied Warm; that there be no new remedies laid to, until after that al the filth and *Impurities* be throughly *cleansed* and wiped away; that there be never more than three drops conveyed in at once; that we be not over forward in tampering with those things that are *Viscous* and Clammy; and the sick person lie upon that *Ear* that is sound and wel: and lastly, that there be care taken of the Head. There are here commended, the destilled Water of *Carduus Benedictus*, the Leaves thereof being twice infused in the Glass Vessel; the Juyce of an Onyon wel soaked in the spirit of Wine, and then roasted under the Embers; the Juyce that is pressed forth of *Ants Eggs*, or the destilled Water *of the same*; the *Gal of an Hare* with a like proportion of Virgin Honey, and such like; of all which you may see further in *Petræus*, and *Hartmannus*.

Chap. 2. *Of the Noise or Ringing of the Ears, and thickness of Hearing.*

This Tinnitus or Ringing noise is Defined to be a Preternatural sound in the Ears, made and perceived in the instrument of hearing, or else in the Cavity of the Head bone, arising from Vapors, first shut up therein, and then moved.

In this Affect there is no need at all of *Signs*.

The CAUSE is conjectured to be that which they term *Pneuma Physodes*, as it preternaturally moveth up and down the inbred Air. Now this indeed *ariseth*, 1. *Either* of it self, *or* otherwise by the Consent and agreement of other parts, to wit, the Spleen, the Liver, the Womb, the Stomach, &c. And then there are present certain signs of those parts affected. 2. Or else from *External Causes* exciting and raising up Vapors, to wit, the extream cold or over great heat of the Air, overmuch

overmuch ſteeding, and fulneſs either of food or Wine, from whence Crudities are heaped up together in the Head; from the north wind blowing immediately after the South wind, which is very eaſily removed; from frequent ſmiting upon the Head and Temples; which is very difficultly Cured, in regard that (the Humors by Reaſon of the pain flowing together unto the Organs of hearing) it is wont to turn into a deafneſs. *Or elſe* from *Internal Cauſes* that ſend forth the very ſame; and this 1. By *Breaths* and blaſts that are *over heating*, and filling forth that little Artery that runneth under the Ear; and *then* the Diſeaſe is wont to be of long continuance: and here we are to deal with thoſe Remedies (whether Decoctions or Juyces) that both cool and moiſten. *Opium* may likewiſe in this caſe be adminiſtred, but then it muſt be with very great caution. 2. From a *Humor Flegmatick* and cold, and then the Malady began by little and little, & from leſs to greater; and returneth likewiſe at ſome certain ſeaſons and by intervals; the noiſe or ſound is cleerer and more diſtinct than ordinary; and laſtly, there were ſome Cauſes of the ſame that went before. In the *Curing* hereof (general Remedies being evermore premized, and taking the firſt place) we are to act and operate by ſuch things as attenuate and diſcuſs, (which ought to be applied in the morning, and before Supper;) as namely, the Vapor of *Vinegar* together with an *Oxe Gall*; the Secret Remedy that is Compounded of thoſe *little Worms* that lie *betwixt the wood and the bark of the Oak Tree*, and the Oyl of Rue, and that Oyl likewiſe known by the name of *Olium Caſtinum*; (ſee further hereof in *Petræus*:) the prepared *Gal* of the fiſh *Lucius*, or the Pike, (as we commonly cal it) and the *Fume* or ſmoak of the Herb *Mercury*. 3. From a *Cholerick Humor*, and then it chanceth in Feavers; it alſo ſeizeth the Patient either Symptomatically or Critically; and ſomtimes it is diſſolved and vaniſheth of its own accord; and ſomtimes again not until after a Cholerick flux of the Belly. 4. From filth and *Impurities*, which ought to be waſhed forth with the deſtilled Urin of an *Aſs or a little Child*, in the which there hath been firſt wel ſoaked a fit quantity of the *Wood Guaiacum*, a due proportion of *Caſtoreum*, and a little bundle of wild mints. 5. From an *Apoſtume*, which diſcovereth it ſelf by its own ſigns.

Thickneſs, as we term it, or hardneſs *of Hearing*, (otherwiſe called *Paracouſis*) is then, *When the hearing preceiveth its objects very confuſedly*. And *this is Cauſed*, *either* by an Ulcer not rightly cleanſed and conſolidated, when as the Windy Vapor being driven through the Arteries by its impetuous violence offendeth the hearing, *or elſe* in Feavers, Vapors being lifted up into the Head, and then poured forth into the Ears. *Or elſe* without any Feaver, when there is a hot Evaporation continually and without any intermiſſion exhaled and drawn up into the Head from the impure Entrails.

Title, VI. *Of the Diſeaſes and Symptoms of the Noſtrils.*

Chap. 1. *Of the Ulcers of the Noſtrils, as alſo of Ozæna, and Polypus.*

THe Affects of the *Noſtrils*, are, *Ulcers*, *Ozæna*, *Polypus*, the *Hemorrhage*, *hurt of the Smelling*, *Stuffing thereof* by a Rheum falling down from the Head therein-to, and *Sternutation* or Sneezing.

I. The *Ulcers of the Noſtrils* happen ſomtimes from a blow, a Contuſion, a fal, a wound, and other Cauſes that are evident, and ſomtimes from the Acrimony of thoſe things that paſs by them, as Salt Flegm, &c. *They are known*, divided, and Cured, like as are other Ulcers, accordingly as we have ſhewn in the firſt Book. The principle *Difference* is that whereby they are divided into Ulcers *Recent* and newly begun, and thoſe that are *Old*, as having been of a long continuance. *Recent* Ulcers are known from hence; that they very frequently iſſue forth a ſmal quantity of blood, and that more eſpecially when they are hard touched upon, and thereby Irritated; and that the Noſtrils are by this oftentimes moyſtened: and that if they be ſuffered and let alone; they are then over grown and covered over with a dry ſcurf and cruſtineſs and that moſt uſually of a black color, which ſomtimes falleth off upon the ſtrong and Violent cleanſing of the Noſtrils by blowing of them.

II. That

II. That that is *Old* and inveterate, and now become a putrid ulcer, is called *Ozena*. It *is known* from hence, that from it there falleth off a more and filthy cruſtineſs, and likewiſe that there iſſueth therefrom a kind of ſnotty filth, of a very il and offenſive ſavour; inſomuch that then the ſick perſon is himſelfe offended with the ſtench thereof, and is likewiſe very noyſom and offenſive unto al thoſe that are neer about him by the contagion of a foul and ſtinking breath; and that, if the mallady be of long ſtanding, the wings (as we cal them) of the noſtrils, or that that ſtandeth betwixt them, or the other tender and ſoft bones of that place are eaten through and putrefied; and the pallate alſo being eaten through is oftentimes perforated; and this eſpecially chanceth, if it hath the reſemblance of a Canker, or be contracted and cauſed by the venereal and foul diſeaſe. It *hath its original* either *from externals*, to wit, ſuffumigations from Mercury and Cinaber inconſideratly adminiſtred: or elſe from *internals*, to wit, ſharp and corroding humors, (and which happeneth in the french pox) ſuch as are extreamly mallignant. It *is Cured*, I. By the *adminiſtring of Univerſal* or general Remedies, that ſo new affluxes may be turned away from the head. II. By the *Evacuation* of the *Head* by Gargariſmes, Maſticatories, &c. and the ſtrengthening thereof by external and internal Cephalicks. III. By the, 1. *Deterſion* or wiping and clenſing of the ulcer, either by the Juices of *Milfoil*, *Horehound*, *Betony*, with honey of Roſes; or by *Alum water*; or by the *green water* of Hartman, before which the mollyfying and ſuppling of the Cruſt by the vapours of emollient herbs ought to be premized, and firſt made trial of. 2. by the *Excication* and drying of the ſaid ulcer by the vapour of the refuſe and droſs of fire-hot *iron* be ſprinkled with red wine; by the ſuffumigation of *orpiment* (commonly called in the ſhops *Auripigmentum*) *Cinnabar*, *Benzoin*, *ſtyrax Callamite*, and *Cloves*, al together throughly mingled one with the other, the noſtrils being firſt ſtop't at their roots, leſt that otherwiſe the brain ſhould chance to be ſmiten and hurt. 3. By *Conſolidation*, with the Trochiſques of *Rondeletius*, &c.

III. *Polipus is a fleſhy excreſcence in the Noſtrils, hanging thereat by certain thin and ſmal Roots or ſtrings, and now one while hanging before out of the noſtrils, and then as ſoon again deſcending unto the Palate,*

It is known by this, that this ſaid fleſh is looſe, thin, ſoft, and of a various color that at ful of the moon it groweth exceedingly, and about the change or new moon it becomes altogether as flaggy and ſmal in appearance, &c. *It hath its Riſe* from viſcous and Clamy humors, and cheifly from flegm mingled with the blood, which falling down from out of the brain unto the exulcerated noſtrils ſticks faſt in the Ulcers. The *Cure* is by al means to be haſtened, leſt that it turn into the Cancer. It *is accompliſhed*, either by Chirurgery, or by cutting it off; of which ſee further in the Practical Authors. Or elſe by *Pharmaceutick's* or medicinal remedies; and among them (univerſal and general medicaments being firſt premiſed) about the new of the moon, there are to be adminiſtred, either the *oyl of vitriol* uncorrected dropt into wooll, and (after the fleſh ſhal have been ſcarrified) ſo applied unto the part affected; or elſe tents of the *Gentian Root*, by the preſcript of *Hartman* or *Joel* his *liniments*. It *is divided* after a twofold manner. I. One is *ſoft* and *white*, which being void of al pain is the more eaſily and the ſooner cured. Another inclining ſomwhat unto a *Reddiſh* color, which is more difficult in the curing. Another *Livid* or black and blewiſh, which refuſeth by any means to be cured, and ſoon degenerateth into a cancer. In this affect there are commended the *yolks* of new laid eggs beaten together in a leaden morter even unto a blackneſs, and then made up into the form of an unguent, with one ſcruple of *Campbire*. Another *hard*, in which Emollients in the form of a fomentation ought to be premized. II. Another is *profound* and deep, which in regard that it is neerer unto the brain, is therefore withal the more dangerous. Another ſuch as is to be *diſcerned by the eyes*, and hath its exiſtence and being ſomewhat more outwardly.

Chap. 2. *Of the Hemorrhage, or Bleeding of the Noſtrils.*

THe Hemorrhage is an immoderate excreſion (and in the whole kind thereof beſides and above the courſe of nature) of the blood by the veins of the noſe, the ſaid veins being divided, rarefied, or opened.

The thing we are now treating of is to be underſtood of that hamorrhage that is *Symptomatical*, (and not of that which is meerly *Critical*) which is cauſed in Feavers by the ſtrength and vigor of nature, with ſigns foregoing of concoction,

coction, and a Criſis on that day the Judgment is to be made; and which diſchargeth and terminateth the diſeaſe.

The SIGNES of this Affect are of themſelves ſufficiently manifeſt. *It is foreknown* by that *Anarropia* (as they term it) or tending upwards of the humors unto the ſuperior parts; the which is ſignified by the pain of the head and neck, the heavineſs of the temples, the dimneſs of the Eyes, the extenſion or ſtretching forth of the *Hypochondrium*, involuntary tears, difficulty of breathing, &c.

The CAUSES are, whatſoever it be that can open, divide, or rarefie the veins of the noſe; of al which we ſhal make mention in the differences.

The CURE is *difficult* if it be ſo immoderate and immeaſurable, that in cholerick bodies (the Choller inflaming and burning the blood) the face becometh of a Citron or oringe color; in Flegmatik bodies, (the flegm being multiplied; of a leaden color) and in melancholly bodyes, of a black and duskiſh color; and if it flow forth to the quantity of four pints therof; if it befal ſuch as are Phlegmatick and melancholly, in regard that they are more cold thereby, than are the ſanguine or Chollerick; if it affect thoſe that are of an high and red color with a certain kind of pain in the head; if it doth not terminate and put an end to that diſeaſe wherein it happeneth, and that a chilneſs and ſtifneſs follow thereupon; becauſe that the body being exhauſted of ſpirits, is extreamly cooled and chilled, and by this means breedeth diſeaſes that laſt and continue a long while. It is *not at al to be attempted* in thoſe perſons that in a burning Feaver are afflicted with pains in the head, together with aches in the neck, and the whole body; and where there is preſent a weakneſs with a kind of trembling; in regard that this putteth an end unto the diſeaſe; in thoſe whoſe monthly Courſes fail them; in thoſe that are afflicted either with deafneſs, or the diſtorſion of the back bone and a difficulty of breathing, or elſe with a ſtrong pain in the inferior parts, al other things being thereunto anſwerable and correſpondent. It is very *doubtful*, if in the affects of the Liver it flow from out of the left noſtril, and in the affects of the ſpleen out of the right noſtril; and eſpecially if it be accompanied with a ſweating of the Breaſt or head; if it happen to thoſe that are Feaveriſh, and that thereupon when they begin to Recover the belly is humectated, and becommeth overmuch moyſtned in regard that the nattural innate heat being debilitated, a dropſie is very likely to follow thereupon; if it happen to be attended with weake, faint, and (as we cal them) cold ſweats, and therewithal a kind of chilneſs, becauſe that hereby is ſignified and ſhown an extream and overgreat diſſollution and ſubverſion of the Spirits; if in an accute diſeaſe it hath together with it joyned a quick and ſuden motion of the eyes, a turbulent and troubelſom ſleep, & frequent watchings or want of dueſleep; if in acute and burning Feavers, on the fourth day, there iſſue forth drop by drop a thick, groſs, and black blood, together with other Symptoms becauſe this argueth & evidenceth the imbicility or weakneſs of nature; and laſtly if ſuch a bleeding chance to be in diſeaſes of long continuance. It is wrought and *accompliſhed*, I. By *Revulſion*, by opening of the median vein (provided that the ſaid veneſection be moderate, and as often as there ſhal be cauſe, Repeated) on that ſide the noſtril is of, out of which the ſaid blood floweth; as alſo by cupping-glaſſes applied unto the hypochondria, if the blood be not naught, by Frictions, &c. II. By thoſe *Medicaments that ſtanch* and ſtop the Hemorrhage or *bleeding flux*; and thoſe either ſuch as are *Cooling*, or *aſtringent* and binding, or of an *agglutinating* Nature; or elſe laſtly, ſuch as *act* and operate by a ſecret and occult quallity; and theſe aforeſaid medicaments either to be outwardly applied, or elſe drunk in and taken down inwardly. In the number of thoſe Remedies that are *internal* and to be taken into the body, the cheif (that we know of) are beleeved to be theſe, *Sperniolæ compoſitum* (or the compoſition of frogs) mentioned and preſcribed by *Crollius*; three or foure grains hereof to be adminiſtred in the water of the herb *ſhepards pouch*; *Crocus Martis*, with the Juyce of Quinces, and ſome few grains of Opiate Laudanum; the *Syrup* of *Coralls* of Quercetan, in a Chalybeat water; the *Extract* of *Crocus Martis*, three grains therof with plantane water; the *ſperm* or ſeed of *frogs*, collected in the ſpring time, dryed, and then drunk with wine. Among the *External* Remedies, the unguent of *Quercetane*, compounded and made of *Crocus Martis* beaten into a moſt ſmal pouder, and *Crocus Veneris*, of each two ounces, theſe wel mingled together with the oyl commonly known by the name of *Oleum Vici Pomarum Symplicium*; the water of the *ſperm of Frogs*, with a little *Champhyre* and *ſugar* of *Saturn*, put round about the neck; *Argilla furnacea*, that is to ſay, Clay baked in an Oven, and wel mingled

mingled together with ſtrong vinegar, like unto a pultiſe; and applied after the ſame manner; *Aſſes dung*, or *ſwines dung* diſſolved in Roſe vinegar, and then put up into the noſtrils; the ſhavings or Fragments of *Fungus Betulinus* (the muſhrom or toad ſtool of the Beech tree) the *Root of white Succory*, digd up about St. James tide, at noon day (when the ſun is at ful ſouth) and chawed betwixt the teeth. As for the *Magnetical Curing* hereof, by Vitriol, ſee further in *Beccerus* in his *Medicus Mycrocoſmus*, in the Chap. of the blood, &c.

The Hemorrhage is *divided* in a threefold manner; from the Cauſes, from the blood, and from the places from whence the ſaid proceedeth.

I. *One* is from that we cal *Anaſtomoſis* (or an opening of the orifices of the veins) which either is cauſed by the *abundance of blood*; (and *then* the face is red, the veins ſtrut and are diſtended, and a ful feeding went before: and here veneſection hath its place; the head is by no means to be waſhed or ſo much as wet with cold water, leſt that the blood being there detained, ſomething that is worſe follow upon it; neither is there any linen cloth to be wet in cold water, and at the firſt begining of it to be caſt about the neck, leſt that the ways and paſſages between the brain and the heart ſhould by this means be ſhut up) *or elſe* it is cauſed by the *acrimony* of the blood, and the *thinneſs* thereof; (and then there ready at hand ſigns of a Cacochymy) and in this caſe we are to do the work with thoſe things that incraſſate and thicken, as *Bole armonick*, *Dragons blood* (in the ſhops termed *Sanguis draconis*) and ſuch like.) *Or elſe* it is cauſed by the irritation of the facculty, (and then the very ſame things as before, are preſent and ready at hand) *or elſe* by the *weakneſs* of the *ſaid* faculty; and then there is blood iſſuing forth by intervals, but it is not much; and ſome diſeaſe weakening the liver went before; and therfore the Cure ought likwiſe to be proſecuted with ſpecial regard had unto the ſame.

Another is from a *diaireſis* (as we term it) or a diviſion of the veins, by ſome *ſharp* corroding *humor*, and like by other means; and then the blood iſſueth forth in a far greater abundance; or there went before ſome violent Cauſe; or elſe laſtly there are preſent certain ſigns of a Cholerick Cacochymy.

Another is from that we cal diapedeſis (or as we may ſo term it, a paſſing through by leaping) and then the blood that iſſueth forth is but very little, &c. See more hereof in the firſt Book.

II. One is of the *Arterial blood*, which is hot, ſomwhat red, ſubtile, leaping forth with a froth, and with violence. Another is of the *vein blood*, and this is Thicker and Blacker.

III. One is of *blood* iſſuing and paſſing forth *out of the veins of the Brain*; and then there went before a pain of the head; and the flux is not eaſily ſtanched. Another is of the ſame blood leaping or ſtarting out of the *noſtril veins*; and then the contrary of what was ſaid touching the former happeneth and appeareth.

Chap. 3. *Of the Hindering and Hurting of the Smel, Gravedo, (or Stuffing) and Sternutition (Or Sneezing.*

THe principal *hurt* of the ſence of *ſmelling*, is the *abolition*, or the *diminution* thereof, which differ only in degrees, and in the greatneſs of their Cauſes. And this is *cauſed*, I. *Either from a diſtemper of the brain*, which *either* poſſeſſeth the *fore part* thereof, (and *then* the Taſt likewiſe by reaſon of the branches of the third pair of nerves of the brain, Forming the tongue, is aboliſhed; the voice is loud and ſhril, and no way to be found fault with; the Cure here, is to have an eſpecial regard unto the diſtemper) *or elſe* it poſſeſſeth and reſideth in the proceſs of *thoſe nerves* that conſtitute and frame the organ of the ſmelling; and *then* there is no hurt at al to be perceived in the brain or in the other ſenſes. *Or elſe* it is cauſed by the *narrowneſs* and ſtreightneſs, and that too either of the *Brain*, (and then there is preſent and ſenſibly to be felt a heavineſs in the head; and here we may operate by errhines, and yet not toomany of them neither; and here likewiſe ſternutatories are exceeding uſeful and profitable) *or* otherwiſe of the *Proceſſes* of the *brain*, or of the *noſe within*, and the *Ethmoid Bone*; and then the voice and reſpiration are vitiated, and the wonted excrements reſtrained and kept in. The ſmelling is ſomtimes *totally aboliſhed*, if the Phlegm by heat be baked and hardened at the holes and enterances of the aforeſaid bone, which chanceth unto ſuch as being troubled with the poſe or diſtillation called *coriza*, heedleſly and without any conſideration go into baths. In theſe caſes that that cheifly

deſerveth

deserveth commendation, is, the Root of *Gentian* fitly put up into the nostrils; *Castoreum* wel soaked in vinegar, and afterwards sweetned; the *Oyl* of *Nightshade*, the *Errhin* of Zacutus, in his seventh Book. 15. Chap. P. 517. &c. touching which we have before spoken in the Chapter of Cacarrhs.

II. Gravedo *or* Coryza *is a defluxion of the Excrements of the Brain (being crude and thin like water) unto the nostrils, which is accompanied and attended with a frequent sternutation or sneezing.*

This Malady is wel enough *known*, and by it self discovered. *It ariseth* from the distemper of the brain, either hot, or cold: concerning which enough above.

III. Sternutation is a violent and involuntary expulsion (by the nostrills) of the flatulent windy spirits, and sharp vapours offending the Brain.

It is done with a *Loude voice*, as wel because the Windy spirit breaketh forth altogether at once; as by reason that it forceth its passage through the streight & narrow holes of the nostrils. *It ariseth either from external causes*, (and then the nostrils are to be supled and gently stroked with the oyl of roses, or milk) *or* else from *internal humors* and vapours brought thither; touching which see further in their proper Chapters: but is wont for the most part, and too commonly to be neglected by the Physitians, unless in Plethorical bodies it happen to be accompanied with a distillation in the very first beginning of the disease. The *little veins* in the greater angle of the eyes, and that is nigheſt unto the nostrils being *forcibly pressed together*, do forthwith stay and stop the frequency thereof.

Title VII. *Of the diseases of the Tongue, and the Symptoms thereof.*

THe Affects of the *Tongue* are, a *Tumor* or swelling, *Ranula*, *a blackness*, a *Palsy*, a stammering, an *Aphony* or Speechlesness, and a *hurting* of the *Taste*.

I. The *Tumor* ariseth either from *External Causes*, as the anoynting thereof with hydrarge or quicksilver, the eating of poisons Mushroms, &c. and then, those things that purge are to be eschewed, and not medled withal; the Tongue is to be washed and cleansed with the decoction of *Scabious*, and plantane, together with a little treakel, and honey of Roses. Or else from *internal causes*, to wit, an afflux of a matter *hotter than ordinary*, to wit, blood or Chollor; (and then, for the most part an inflamation is excitted) or else of a matter that is *colder* than usually; and then, the tongue waxeth white, and very much flegm floweth fourth; or else of a *poysonus* mater, as in the French disease, and this carryeth its signs along with it; or else the maater is *corrupt and canckerous*, and then the malady is almost incurable; and a putridness, or a flux of blood (in tongus that are quite eaten through) happening at the Root of the tongue, at length the persons thus affected dye thereof. For al and each one of such like patients aninunction with the *oyl of vitriol* and honey of Roses is very conducible; as likewise the opening of the veins under the tongue.

II. Ranula is a swelling, in shape resembling a frog, which now and then ariseth and groweth out under the tongue, out of that soft flesh on which the tongue lyeth, and unto which it is tyed and fastened as with a chain.

It is known by the bare looking upon it. *It ariseth* from a viscous and Pituitous blood flowing thither, and exciting a soft and loose swelling, that being opened yeildeth forth a kinde of snotty filth like unto the white of an egg. *It is cured*, either by topical remedies, (among which the *oyl of vittriol* with the hony of Roses, is very prevalent and avaylable, or else by *Chyrurgial Operation*, which ought to be seconded with liniments of correfied *Tragacanth*; together with the *Hermodactyl* root, and the white of an egg; or with gargarismes; or with both together.

III. *A Blackishneß with a scabbedneß and clefts sometimes* ariseth from hot and fiery vapours and Exhalations, and this especially in burning feavers. It ought to be washed with the *Milk of a Goat*, or that of a *Bitch*; and also to be cherished with the Mucilage of the seeds of *Psylium* or fleabane, and *quinceseeds*; and after al to be washed with refrigerating waters, together with the salt or *stone prunella*.

IV. A *Palsie* hapeneth unto the tongue; and that either unto the whole tongue, (and then those nerves that are derived from the seventh Conjugation of the Brain, neer unto the place where the spinal marrow hath its beginning, are wholly impeded and stopped; and there is also very great fear of an Apoplexy impeading, and now nighe at hand) or else

only unto a *part thereof* (whether the right or the left) either by the default of the Nerves, or the Spirits. In the *Curing* hereof (Univerſals alwaies premiſed) we commend to you the *Salt of Margarites*, ten grains thereof in Malmeſey; the *Oyl of Roſemary*, with the little rols of *Diambra* or *Diacaſtoreum*; the *Water or Spirit of Black Cherries*; the rubbing of the Tongue with *Tobacco Leaves*, *Rocket Seed*, *and Treacle*. See likewiſe the *Electuary* of *Solenander*, in his Conſultations.

V. *Stammering* and *Stuttering* inſeſt the Party, either *from Drunkenneſs*, or from an *ill Compoſure* and frame of the Tongue, or from the *ſhortneſs*, and *exceſſive thickneſs* thereof; or elſe from its *Immoderate dryneſs*, or overgreat Humidity and moiſture. It is not to be taken away, and Cured, but with much difficulty.

VI. The *Aphony*, or Speechleſſneſs, ariſeth either from a default and error in the natural *Formation* thereof; or elſe from the *Palſie* when it is *Conſummated*. *It is to be* Cured like as the Palſie. And for this purpoſe there is commended the water of *lillies of the Valley*, and of *Lavender*; with the *Blood of a Turtle*, the Oyl *of Anni-ſeeds*, and the *Spirit* of *Vitriol*.

VII. The *Hurting* of the *Taſte* is then ſaid to be, I. *When it is either Diminiſhed, or wholly Aboliſhed*; and this either by the overcooling of thoſe ſofter Nerves derived from the third Conjugation of the Brain; or elſe by the affecting and hurting that part of the Brain from whence they proceed and paſs forth: there is here to be preſcribed the opening of the Vein under the Tongue; as likewiſe al thoſe things, of which we made mention in the *Aphony* and *Palſey*. II. *When it is depraved*, ſo that another kind of Savor is perceived; which then happeneth, when *either* the body of the Tongue *or* the Membrane that encompaſſeth it about, is Repleniſhed with a noyſom and foul Humor, that either alone of it ſelf, or elſe dilated together with the Liquor of thoſe things that are Eaten and Drunk, penetrateth into the Body of the Tongue, and the ſoft Nerves thereof; and then the Savor is perceived to be, in taſt, either Salt, or bitter, or acid and ſour, according to the nature and quality of the Exhalation and Humor. And here we approve of the *Rubbing of the Tongue* with the Root of *Zedoary*, or *Gentian*, the *Raddiſh pickled in Salt* Chewed before Supper, and the Mouth afterward waſhed with Wine, &c.

Title, VIII. *Of the Diſeaſes and Symptomes of the Lips.*

THe Affects of the *Lips* are, *Clefts*, *Ulcers*, *Trembling*, and *Preverſion*.

I. *Fiſſures* or *Clefts are a ſolution of the Continuity of the Lips, by overmuch dryneſs and extenſion.*

They are known by the view. *They have their Original* from overmuch dryneſs and extenſion, as was ſaid before in the definition. *It is Cured* by Correcting the dryneſs with thoſe things that Humectate and moyſten, and by uniting of the diſſolved Union. For this purpoſe we preſcribe that *Fat* which diſtilleth *out of* thoſe wooden *Spoons* uſed in Kitchings to boyl withal, if they be put neer unto the Fire. They are variouſly *divided*, I. Some are from the very *Birth*; and theſe are hardly Cured. Others are *Adventitious*, which are more eaſily Cured, unleſs they chance to degenerate into a Cankerous matter. II. Some are from *Cauſes External*, Cold, heat, the North wind, &c, and then the relation of the Patient wil ſuffice. In the Curing of them, like as they al muſt be removed, ſo ought there to be a regard had unto each particular of them. For thoſe of them that have their originanl from Cold, the *White Pomatum* is excellent good. Others from *Cauſes Internal*, to wit, I. *Hot Humors*, which are many times devolved from out of the Head, and theſe bring along with them a kind of itching, and profundity. In the Cure, the matter being Evacuated, fine ſoft Linnen clouts, wel ſoaked in the *Juice of Sengreen*, are to be impoſed and laid on them; and if the Chaps or Clefts be ſomwhat deep, they are then to be anoyned with *Gooſe Greaſe*, and *Capons Greaſe*. II. From *Vapors* which are Hot, Dry, Salt, and Sharp. They aſcend up from the inferior parts by the *Oeſophagus*, or the great rough Artery called *Aſpera Arteria*. They infeſt wanton luſtful Women, from the dryneſs of their Womb,

by Reason of the common Tunicle; and they produce Clefts without any heat at al, or itching, or much hardness, neither are they very deep, or frequent. In the *Cure*, regard must be had unto the parts transmitting. In al of them, the Lip is to be turned inward, and then the mastication or chewing of Mastick being premised, it is to be moistened with the Tongue.

II. Touching the *Ulcers of the Lips*, these things are wel to be noted. I. That al of them *do proceed* from Humors that are sharp, Cholerick, and Serous or Wheyish, either from adustion and putridness, or else from their admixture, II. That somtimes they are covered over with a crustiness, and somtimes running. III. That somtimes they are *Critically* thrust forth in Malignant, and likewise in other Feavers; and these are easily Cured of themselves, and they design the end of the Feaver; if they be together with the Natural strength and Vigor much impayred, they then threaten death: and somtimes they are thrust forth *Symptomatically*, and that either by Reason of a Contusion of the Lip; or by reason of Poysons; or by Reason of Humors, as in the French Pox. In the *Cure*, Medicaments are most fitly and best of al administred about the time of the Patients sleeping. Al sharp meats ought carefully to be avoyded.

III. The *Trembling* of the *Lips* proceedeth, either from *External Causes*, to wit, 1. Cold, with a gracing of the Teeth. 2. Wrath or Fear, the spirits being thereby either dissipated, or made to retire into the more inward parts. Or else from an *Internal Cause*, as from the weakenning of the Nerves in some extraordinary great affect of the brain; in the Nauseousness of the Stomach, and propension to vomit, from a sharp Humor pulling and twinging; or else from the agitation and disturbance of the Stomach by the consent and agreement of the Membrains thereof, in case of Worms. The Cure must be ordered according to the Causes.

IV. The *Perversion of the Lips* proceedeth from the affect of the *Nerves* of the *third pair*, there being then a Convulsion of the Muscles; and this either *of it self*, from dryness; or else *from the Event*, or when the neer allyed and conjoyned Muscles, (that together and at once lift up or press down some one of the Members) are drawn together and suffer a Convulsion; or else when the Muscles *Antagonistæ* are resolved. It is *deadly*, the strength and powers of the body being extreamly weakned, in Continual Feavers, and when there is a peculiar defect of the Organs. *It is voyd of al danger*, if the powers of the body be strong and vigorous, the actions thereof constant and Uniform, and when the *Metastasis* (as they tearm it) or transferring of the Critical Matter unto the Head be accomplished.

Title, IX. *Of the Diseases and Symptomes of the Face.*

Chap. 1. *Of the Opening of the Mouth, Gaping, and Yawning.*

THere belong unto the Affects of the *Face*, the *opening of the Mouth*, *Gaping*, *Yawning*, the *Writhing* thereof, and that we cal the *Ptyalism*, or frequent spitting.

I. *The Opening of the Mouth is, when that bone that by Nature ought to have been shut is yet not shut.*

This cometh to pass, I. When the lower Jaw-bone Joyneth and groweth unto the Head; which very rarely happeneth. II. When tumors arise *neer about the Conjuncture* of the Jaw bones, in the inflamations of the Jaws and the Tensils. III. When the *Roof of the Mouth*, (in the which the Cheek is turned and moved,) *waxeth stiff*, and the Mouth becometh so close shut together, that even in windy ructures or belchings it cannot be widened and enlarged, there being gotten in, and deeply inserted into that Juncture and the bonds thereof a most filthy and nasty humor. IV. When the *Neck is* distended by *Reason of a wound in the Nerves*, because that then the Jaws wax stiff like unto the bones.

II. *The Gaping of the Mouth is then, when the Mouth that by Nature (one Lip falling down and resting upon the other,) ought to have been shut, Gapeth. It ariseth*, 1. *From an il Custom.* 2. From the *Relaxation* of the Nether Jaw-bone. 3. From the *Obstruction* of the *Nostrils*, that so more store of Air may be attracted. 4. From the *ascending* up of extream hot *Vapors*, in Feavers;

vers; and then, if there be pains of the Jaws (without any swelling) that albeit they be but smal, yet seem as though they would suffocate and strangle the party, then the mindes disturbance and alienation is portended and threatened. 5. From the *Hurting* of the Memory in the Lethargy.

III. *Oscitation or Yawning is a vehement distention of the Mouth by Halituous and windy Vapors gathered together in the spaces of the Muscles of the nether Jaw-bone, and of the Cheeks, and Exstimulating or provoking the Excretive faculty to do its office by Excretion.* Touching the *Signs*, we need take no great pains to find them out: but indeed, in regard that the Passage of the Ear at that time doth not sufficiently admit of, and give a meet entrance unto the Air, and likewise that the Auditory Nerve is compressed, it hath therefore Joyned with it an hardness or thickness of hearing. The *Cause* is expressed in the Definition. The *Cure* is scarcely to be *Hoped* for, or expected, if it happen in Childbearing. It is somwhat *Doubtful*, if it Relax and loosen the lower Jaw-bone. But otherwise, if it happen without a more frequent occasion, if the matter being widened the Air be abundantly and greedily drawn in, and then instantly excluded and thrust forth again with a loud noise, it presageth Diseases; and it is in very deed the *Preludium* of Feavers, by Reason of the ascent of Vapors from the matter collected together in the lower parts, and there putrefying. It is to be *effected* and wrought, I. By excluding the matter that fomenteth and supplieth the Vapors. II. By the Discussion or Revulsion of the Vapors themselves.

Chap. 2. *Of the Writhing of the Mouth.*

THe *Writhing of the Mouth is a distention thereof, proceeding from this, to wit, when either the Muscles of the Face, or the Nerves of the third and fifth Conjugation, or those that descend from the first and principal Vertebræ of the Neck.*

The SIGNS are, that one of the Eyes can never be rightly shut; and that the Patient being bid to spit forth, doth it on the one side only: and if there were no other signes, yet this there wil be, that the Party being commanded to laugh, or to pronounce the letter O, can by no means stir or move one side of the Mouth.

The CAUSE is expressed in the definition.

The CURE is so much *the easier*, if this unseemly affect hath no consent or agreement with any other part of the body. But more *difficult*, if it be lengthened out and protracted beyond the sixth month. How the cure is to be *performed* shal be further shown in the differences.

Now *it is divided* in a two-fould manner, according to the nature and condition of the Causes.

I. One is from *Resolution*, which *may be known* by this, that the part affected is loose, and the softer part thereof drawn to that part that is sound; and that the sense in the part affected is very obtuse and dull; that the eye lids in part fal down; that the face is extended without any wrinkles at al, and that it continually inclineth toward the inferior parts. *It ariseth* from the very same causes from which it portendeth a palsy or an apoplexy. It is *Cured* in the manner as a palsey. 1. By *Universals*; where note wel, 1. That before the fourth or the seventh day (unless there be a fear of the before mentioned diseases) we must have no recourse unto the stronger sort of medicaments. 2. that a vein is to be opened, first in the Arm, and after that under the tongue. 3. That Cupping-glasses with scarification ought rather to be applied unto the shoulder blades, than unto the first vertebræ, lest that if they be too often imposed on the neck they may haply cause a trembling. II. By *Particulars*, and then Errhines and Apophlegmatisms are of good use. Gargarisms are not to be administred before errhines, lest that the matter be thereby drawn unto the face. Outwardly, let there be inunctions of *Castoreum*. Let the mouth by Ligatures be reduced again unto its natural state. Let the sick person be put into an obscure and dark place, lest that by much light the humors being scattered run together unto the nerves. Let a looking glass be set oppositely before him.

Another from *Convulsion*; which *is known* by this, that the part affected is hard, and for the most part, ful of pain; that the sound part is somtimes drawn unto that extended; that the skin in one part thereof is rugged and wrinkled, and in another extended; and lastly, that there is here present but very little Salivation or spiting. *It ariseth* from the same Causes with the Convulsion. And it is likewise as *hardly cured* (or else *not at al*) if it seize upon both sides of the mouth (we cal it then a

Chymical

chymical (paſme) and be violent & ſtrong; for ſomtimes within four daies, and ſomtimes again (at the furtheſt) within twelve, the matter being transferred unto the head kileth the party thus affected; or if it happen in burning feavers, a pernitious Phrenſy, &c.

II. Another is, *when the Muſcles are affected*; & then the vitious and deformed figure teazeth only that part of the face which the affected muſcle covereth. Another, *when the nerves*; and then, their ſpring-head and *beginning* being *affected*, the Brain is likewiſe affected in the one half thereof; and half the face alſo, together with the whole body, ſuffereth; but if they be *affected in their progreſs*, then the diſtorſion or writhing ſeizeth upon the one half of the face throughout al the parts thereof: when the *third pair* of nerves are affected, (in regard that the ſame part thereof ſtandeth forth by the ſame holes with the moving nerves of the eyes) the eye cheifly ſuffereth: if the fifth pair be affected; then there is likewiſe ſome ſlight hurt of the hollow or inner parts of the Cheeks; but if the *firſt vertebræ of the neck*, then the hurt that befalleth the Cheeks is ſo much the greater; but then the eye (unleſs withal the Temple muſcle, into which the fifth Conjugation ſendeth forth a ſmal branch, be affected) is the more freed from ſuffering.

Chap. 3: *Of the Ptyaliſme.*

A Ptyaliſm is a frequent and involuntary ſpitting and ſpawling, without any Cough or retching, proceeding from a ſuperfluity and over great ſtore of ſpittle.

Our diſcourſe is of that ptyaliſme that is *Symptomatical*, and not of the *Critical*, which freeth the ſick perſon from the diſeaſe he lyeth under.

Of SIGNS there is no need at al. It is termed *involuntary*, the better to diſtinguiſh it from that that is by uſe and Cuſtom; whether it be in concluding of a ſentence in a diſcourſe, or whether otherwiſe, it maketh no matter. It is ſaid to be *without any cough or retching*, in regard that what for the moſt part upon excretion or reaching is caſt up out of the *Thorax* or breaſt, is moſt properly called ſpittle; and that ſallivation or ſpawling, that is caſt forth, and commeth away without the ſaid ſtretching or retching.

The CAUSE is an exceſs and over great ſtore of Spittle. For if it be conſidered as it is Naturally in its Mediocrity, ſo it is requiſite, by its mixture to prepare the meat while its maſticated and chewed in the Mouth, for the firſt Concoction; to further and help the ſpeech, and to be the Vehicle of the ſeveral Taſtes.

The CURE (in general) is to be directed towards, and ordered unto the Corroboration of the Tonſils, in regard that it is bred in the aſſiſtent Glandules on both ſides the Tongue, (which they cal Tonſils) by the concurrent heat of the Tongue and the other parts in the Mouth. This is done with the Decoction of the Leaves of *Myrtle*, *Plantane*, and *Alume*, &c. Which are only to be kept and conteined in the Mouth, and not to be Gargarized therewith leſt that thereby more Flegm be attracted and drawn unto the Superfluous Spittle.

It is *divided* according to the Cauſes thereof.

One is from *Cauſes External* increaſing the Spittle, to wit, that dangerous and pernitious anoynting with Quick-Silver, ful feeding upon moiſt meats, and exceſſive drinking. And this ariſeth and ſheweth it ſelf after meals.

Another from *internal Cauſes*, to wit, a wateriſh and Flegmatick Humor; which 1. Somtimes falling down *from the brain* unto the Jaws mingleth it ſelf together therewithal; and then the ſame thing likewiſe is done and haprieth in the Relaxation or looſening of the Columella, the inflamation and Ulcers of the Mouth. The *Cure* is to be directed and ordered according to that of a Catarrh. 2. And ſomtimes that that is heaped up in *the Whol Body* is tranſmitted thither; and this moſt commonly happeneth in Infants. 3. Somtimes it (as it were) ſweateth out of the overmoiſt and empty *Stomach*, and this eſpecially after Chronical Diſeaſes; and then, a regard is to be had unto the purging of the Stomach by *Aloetick* Medicaments, *Frankincenſe*, and *Maſtick* taken in wine, Meats wel ſawced with Muſtard, and *Diagalanga*. 4. Somtimes it proceedeth out of the *Inteſtines*, as in Worms; from the Spleen, as in thoſe that are afflicted with the Scurvy; out of the *Breaſt* and *Lungs*, &c.

Title,

Title, X. *Of the Affects of the Mouth.*

Chap. 1. *Of the Aphthæ, or Exulcerations of the Mouth.*

AFfects of the *Mouth* properly so called, are, the exulcerations termed *Aphthæ*, and *Fætor*, or the stinking of the Mouth, and the Breath.

The Aphthæ, are certain Hot and Fiery Exulcerations in the highest part or Superficies of the Mouth that have in them somthing of heat.

There is in this case no need of SIGNS; they are sufficiently known by the sight alone.

The CAUSES, as wel External, as internal, shal be expressed and explained in the Differences.

The CURE is performed by *Repulsion*; in the beginning with astriction, and in the progress with discussion; but by *Discussion* alone, and *Maturation*, if they incline and tend toward a suppuration; and here *Milk* boyled, or the Decoction of *Raisons of the Sun*, is to be made use of, and it is known to be of singular benefit.

They are divided after a various and Different manner.

I. Some of them are from an *External Cause*, to wit, an anoynting with *Quick Silver*, Meats of a sharp quality corrupted in the Stomach; the eating of Mushroms or Toadstools; and the Retention of the *Menstrua* or monthly Courses, &c.

Others from *Internal* Causes, to wit, 1. *Ill Humors* either generated and bred there, or else transmitted thither from some other place, and then they resemble in color those Humors they proceed from. Those that take their original from Flegm are perceived to be less hot than the rest. Those from Choler for the most part are inflamed. Those in little Children, if they be black, and have a kind of crustiness over them, are pernitious, destructive, and deadly. These require Universal Remedies. 2. *Vapours*, that are sent forth either from the whol body, or else from part thereof only, and that more especially an over hot liver. They easily by their Acrimony offend and hurt the uppermost parts of the Mouth, by Reason of their softness and tenderness: and in feavers they very frequently produce such a like Disease.

II. Some are *Recent* and new, which are the more easily Cured and healed; others old and *Inveterate*, and these not without much difficulty; and this, as wel by Reason of the quick sense and apprehensiveness of the part, which is further Irritated by sharp and piercing Medicaments as that the Medicaments are diluted and vitiated by the Spittle; and lastly as by Reason of the speedy hastening of the Malady (being in a place hot and moist) unto a Rottenes and Putrefaction.

III. Some of them are *Sordid* and foul, which may be washed with *Sugared Water* wel mingled with the Oyl of Vitriol. Others leaving behind them their *Sordid and filthy Ulcers*; and then the *Green water of Platerus* is fitly and properly to be administred, and this is to be followed by the washing of the Mouth with Plantane Water.

IV. Some of them do *only infest* and annoy *the uppermost Skin*, and from thence by degrees creep along into the gums, pallat, the sides and Root of the Tongue. Others *Penetrate* and pierce *more deeply* and eat quite through the Palate and the flesh of the Tongue; especially in infants; in regard they have the softer and more tender bodies. There is here to be commended the Decoction of *Savory* and *Betony* in Wine, if the Mouth be throughly washed therewith; as also the Water of *Nuts* destilled with Vinegar, and a Spunge therein dipt, and so applied.

V. Some are in *Children*, which most usually proceed from the Breast-Milk when it is hot, sharp, and Salt; (and these are to be Cured with the *Syrup of Mulberries*, together with Honey of Roses, or *Oxymel*, or honyed Vinegar. Others in such as are Older, and grown up to their *perfect state*; and these require and cal for Universals.

Chap. 2. *Of the Stinking of the Mouth.*

THe Fætor or *Stinking of the Mouth is the offensive Unsavorines of the Breathing, proceeding and arising from a stinking Vapor passing out of the Mouth.*

There

There is no need of *Signs*.

The Cheife and neereſt *Cauſe* is a *Vapor*, which proceedeth, I. From Meats either ſtinking and unſavory in their own Nature, as Garlike, Onyons, &c. And the ſtink ſoon, and of its own accord, vaniſheth; or elſe ſuch as are corrupted in the Stomack, or the void places betwixt the Teeth. II. From the *Excrements* of the *inteſtines*, when the inferior Orifice of the Stomach (by which it openeth it ſelf into the Inteſtines) is not cloſely ſhut; which befalleth common drunkards; and then in this caſe, *Cloves*, *Nut-Meg*, *Zedoary*: the *Roots* of the *French flower-de-luce*, Rinds of Citron, &c. Are to be held and kept in the Mouth. III. From *ſtinking Humors*, either in the Stomach; and then they are beſt of al Evacuated by Aloetick Remedies; or elſe in the ſtrainer bone, if at any time corrupted; or elſe in an Ulcer, and wound, of the Lungs, the Gums, or the inteſtines. IV. From *Worms*, having their reſidence in the Inteſtines, &c.

Title, XI. *Of the Diſeaſes and Symptoms of the Teeth.*

Chap. 1. *Of the Diſeaſes of the Teeth.*

Article, I. *Of the Corroſion of the Teeth.*

THe Diſeaſes of the Teeth are, *Corroſion* and *Mobility*.

The Corroſion of the Teeth is a diminution of their magnitude from Cauſes that Eat through them, ſo that they are broken, fal forth by piece-meal, the ſaid diminution or corroſion now and then producing Fiſtulaes.

The SIGNS are eaſily diſcovered, both by the touch, and by the ſight thereof; and for the moſt part, thoſe that have ſuch Teeth, when they are faſting ſend forth a ſtinking and Unſavoury breath or Vapor.

The CAUSES of Corroſion are, either *External*, Womens Fucuſſes or Face paintings made of *Hydrarge*, &c. Al ſweet meats more eſpecially Sugar (as Experience teſtifieth) food taken in too hot, or elſe meats that are overcold taken in immediatly or in a very ſhort while after the hot Food. Or elſe they are *Internal*; to wit, 1. *Sharp Humors*, which for the moſt part run down from out of the Head; and then in the *Cure*, we ought ſo to proceed, that in the firſt place the Flux be ſtopt. 2. That the putrid humidity be quite taken away by the Decoction of the *Roots of Capars*, *Bay Berries*, *Gallia Moſchata*, together with maſtick put into the hollow Tooth, 3. Corruption muſt be carefully prevented by cleanſing of the Teeth (with a Pen-knife) from meats that ſtick betwixt them; and likewiſe by waſhing of the Mouth with Wine. And here are commended the *Odontalgick* Remedy of *Croſſius*, one grain thereof, wrapt up in Cotton, and ſo put upon the Tooth; the little round Bals of *Tralliānus* formed and made of *Thebane Opium* one *ſcruple*, *Mirrh*, *Styrax Calamite*, *of each a dram*, *white Pepper*, *Saffron*, *Galbanum*, of each one ſcruple, and ſo made up with Honey of Squils, and then thruſt into the Tooth. II. *Worms*, which are to be drawn forth by thoſe little Pellets that are formed of the *Henbane* ſeed, the *Onion*, and *Garlick*, with a ſufficient quantity of Goats ſewet, and ſo impoſed upon the Hollowneſs of the Teeth.

Touching the *Fiſtula's* of the Teeth theſe two things are to be noted.

I. That they diſtil almoſt inſenſibly and by little and little a *Corrupt* Humor, and a kind of *Rotten Filth*, which *Somtimes* floweth into the Mouth with a ſtinking Savor. *Somtimes* it is leiſurely derived and drawn forth unto the external parts, along by the Roots of the Teeth, and the paſſage holes of the Jaw-bone, through which the Veſſels glide down, and ſlip into the ſaid Jaws: and to this Humor exciteth certain little riſings and ſwellings in the Cheek, or in the Chin; and *Somtimes* the Ulcer remaineth ever more open.

II. That it is hardly ever *to be Cured*, unleſs that the *Tooth be wholly pulled out* by the Roots; in regard that their little riſings albeit they may be broken, they wil yet grow up again a new, ſo that the Ulcers cannot by any means be ſhut. But now, that the tooth may the better be drawn forth, it may be wel rubbed with the *Fat* of *Green Frogs* living in trees; or elſe thoſe ſame little pellets formed of the *Juyce* of *Tithimal*, (or *Milk-Thiſtle*, and *Ammoniacum*, may fitly be put into

into the cavity or hollow thereof; or else it may be anoynted with the dissolved unguent of *Gum Ammoniack*, and the *seed of henbain*. But here observe, 1. That the neere neighbouring teeth ought to be wel guarded and fenced, lest that otherwise they be touched by the aforesaid medicament. 2. That the mouth is to be kept open, that so the Spittle may the better flow forth. 3. That nothing is to be swallowed down.

Article. II. *Of the Looſneß, or Movableneß of the Teeth.*

The Mobillity of the Teeth is the weak and infirm ſtanding of them, proceeding from the proper Cauſes thereof; upon which ſaid vacillation or infirmneß the falling forth of them doth oftentimes enſue.

The Teeth are the *Subject*, (but especially those that we cal *Inſicorii*, or the Cutters) which are faſtned with one root only.

The tooth it self if touched wil furniſh us with a SIGNE.

The CAUSES are either *External*, or *internal*.

External, to wit, a blow, or a fal; and then we are to deal by aſtringent medicaments; but cheifly with the remedy that is compounded of *Acorus one dram, burnt Alum, Gals, the Juice of Acacia, of each half a dram; red roſe leaves half a handful*; decocted with a pint of red wine, until it be fallen a thumbs breadth in the boyling, and then ſtrained; with which the teeth ought dayly to be waſhed.

The internal are, I. an il *depraved Juyce corroding* and eating through the gums or the roots of the teeth; and then ſharp diſtillations had their precedence, and the teeth their pain; in this caſe the pouder that is made of red coral prepared and maſtick, is very available; if this happen in the venerial diſeaſe, for the Cure we muſt have recourſe unto the ſaid diſeaſe. II. *Overmuch humidity looſening* the roots of the teeth; and then the mouth aboundeth with ſpittle, and the gums are ſoft. In the *Cure* we are to make uſe of aſtringents of the decoction of *Sea-fern, Capars, Mirtle leaves, with the oyl of Sulfur. Pomgrannet rindes, Pomgranet flowers*, and *vitriol*, in regard that they make the teeth black are carefully to be avoided; if it chance from the ſcurvy, we muſt then have reſpect untoit in the cure of the diſtemper in hand. III. A *deffect of aliment*, which happeneth in old people, and in ſuch as are in the way of recovery out of a diſeaſe; from whence it is that the holes of the teeth are the more widened and enlarged. It is not poſſibly to be cured, but yet notwithſtanding we are to make uſe of thoſe things that are moderately aſtringent.

I have already ſaid that ſomtimes there followeth a *falling forth* of them; touching the which, obſerve. I. That in *infants* (in caſe the roots remain, in which the only hope of their ſhooting forth again conſiſteth) they then of their own *accord ſpring up and grow again*. II. That the *Molar appendix* (as they term it) ſeldom or never *falleth forth*, in regard that it is ſo cloſely conjoyned with the teeth, that the boney part of them may be ſeen. III. That the *Gemini*, or twin teeth, if they fal out, they ſcarcely ever return and grow forth again. IV. that the vacant places of them may be filled up with artificial teeth made of *ivory*, and put faſt unto their places, alwaies provided, that due care be taken leſt that from the Compreſſion, there ſhould chance to follow an inflamation of the Gums, or of the Nerves.

Chap. 2. *Of the Symptoms of the teeth.*

Article. I. *Of the Odontalgia., or pain of the Teeth.*

The Symptoms of the Teeth are, *Odontalgia, Stupor, Stridor, and Nigredo.*

Odontalgia is a ſad and greivous ſence of pain in the teeth, proceeding from the Solution of Continuity in them by reaſon of humors.

I cal it an afflicting and *greivous* ſence of pain; for both the teeth, and likewiſe the ſoft and tender nerves of the Brain proceeding from the fifth and ſixth Conjugation are partakers hereof: and the little membranes that encompaſs about the internal Cavity have likwiſe a little nerve implanted at the very root of the tooth.

The Teeth (and eſpecially the Grinders) are the *Subject*. Yet notwithſtanding that pain is different, and to be diſtinguiſhed from the pain in *Children while they are breeding teeth* (which is greateſt) and at the height, when the dogteeth (as they are commonly called) break forth; the which ſaid pain ariſeth alſo from the hardneſs and thickneſs of the Gums, and ſoon vaniſheth away, if the aking tooth be

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anoynted with the fat of a hen, or the milk of a Bitch.

There is no need of SIGNS: and yet notwithstanding it is dilligently to be discerned and differenced from the pain of the *Gums*, that are sometimes inflamed, swel and puttefie; and which is not at al removed, or so much as mitigated, although the tooth be drawn and taken forth.

The CAUSE is a humor dissolving continuity: touching which more in the Differences.

There is *Good hope* of a *Cure*; if there be a kind of *pus* or purulent matter gathered together in the Ear; and if the swelling arising in the Gums or in the Cheeks not first appearing, the matter be transmitted and thrust forth from the inward unto the exterior and outward parts. But there is but very *smal hopes*, if there happen withal a burning feaver, and an unusual grating of the teeth; in regard that this last (especially when it invadeth the patient by reason of the convulsion of the temple musles) seeing that it denoteth the touching and hurting of the brain; it therefore first of al threateneth a deliry or dotage, and soon after (in regard that it betokeneth the confirmation of the mallady) it menaceth and portendeth even death it self. *It is performed*, 1. By the *mitigation* of the pain (if it be externaly urgent and intollerable) by narcotick medicaments. That that is here profitable & expedient, is, *two grains of opium with* an equal part of *Saffron* wrapt up in silk, and put into or betwixt the pained teeth; the washing of the mouth with *vinegar* and *Opium*; Pils formed of *Opium* and the *Treacle* of Andromacus; touching which see *beckerus*, in his *medicus microcosmus*. The pain being once asswaged, let the mouth be forthwith wel washed with the decoction of sage and Rosmary. II. By the evaccuation of the peccant *humor*, by bloodletting; and here, (when it is for Revulsion) the blood must be drawn out of the greater vein; but when for derivation, from the lipps of the ears, or else from under the tongue; neither are we to forget or neglect the use of vesicatories behind the ears. III. By the repulsion and *interception* of the said humor; and for this purpose serveth wel the Emplaster of *mastick*, *Gum elemy*, and *Taccamahaka* throughly warmed, and so applyed to the temples. IV. By discussion, with the playster of *Melilote*, and other the like. V. By the *Application* of such remedies as act and operate by their own specifical property; among which the cheif are, the *tooth* of a dead dog, burnt in the furnace, mingled with posset drink, and so imposed; the root of the sharp and sowr sorrel taken up in the spring, before it blossom and bud forth, wel dryed, and so applied unto the pained tooth; That we term *senecta serpentis*, boyled in wine or vinegar; *Gum Hedera* put into the teeth. VI. By *extraction* and drawing it forth; which wil be much facilitated, if the tooth be first touched with the distilled water of *Sal Armoniack*: take notice of this, let the Cause be what it wil: Take the *Fern root* and *Cinquefoyl*, of each three drams, *Bistort*, two drams; the *leaves of Rew, of Sage, of Betony, the Flowers of Roses, of each half a handful*; boyl al these in a sufficient quantity of red wine that is most astringent, and as much common water as you think fit, (until a third part be wasted) for a Collution to wash the mouth withal.

The *differences* are taken from the *original*, *place*, and *quality of the Humors*.

I. For their rise and *original*; they somtims flow together from the highest part or crown of the *head*; and then, the Revulsion ought to be by the Cephalick vein; and likewise those things that we hinted before touching repellers, are heedfully to be observed. Somtimes they arise from the *inferior parts*, and then the revulsion ought to be made by the Basilick vein.

II. For the *place*; sometimes they stick and abide in the *tooth*, and then the pain is not altogether so deep; but is extended according to the latitude of the tooth. For the most part it conceyneth within it a worm; by the motion whereof the pain is exasperated. Somtimes in the little *nerve* tending toward and into the roots of the tooth, and the nervous membrain thereof; and then the pain is the more vehement. It extendeth it self in breadth al along the Gums, and reacheth even unto the Ear; the tooth being taken forth, it is much eased, in regard that (by reason the way is opened) the pain may the better be dispersed and blown abroad. Somtimes it seateth it self in the very *Jaw-bones themselves*; and then, it floweth into the upper Jaw-bone along by the greater Angle of the Eye; and into the lower by the Temple Veins. We cannot attempt the Cure by Repellers, without apparent danger; in regard that the matter being brought unto the Jaws inevitably suffocateth and choaketh.

III. For the *Qualities*; some are *hot*, Serous or Wheyish, Salt, and Sharp; which excite

excite a most violent and intolerable pain, but hot withal such as soon hath an end, by Reason of the sudden changes. It is very rare that they have adjoyned to them (as a Concomitant) the swelling of the Cheek. They are removed and taken away by Repellers; among which are, Roots of the *sour Sorrel* boyled in hard and austere Wine, and together with Wine held in the Mouth as long as need requireth; the Roots of the *Wild sloes*; (the outward Rind being taken away) and this indeed is one of the cheif Remedies, al things else corresponding, and answerable thereto. Others are *Cold* and *Flegmatick*; from the which that pain that proceedeth is indeed more remiss and gentle, than the former, but then it is of longer continuance: these most commonly produce a swelling of the Cheeks. This pain is to be taken away (after that Universal and general Remedies have been made use of) with *Camphire half a scruple*, Spirit of Wine two ounces, or of the *Juniper Gum* half an ounce, boyled together with eight ounces of Rhenish Wine, and for a while kept in the Mouth: Or lastly, of the *Distilled Oyl of Cloves*, two drops thereof, with a smal proportion of Camphire, put upon the Tooth being first wrapt up in Cotton.

Article, II. *Of Stupor, Stridor, and Nigredo, in the* Teeth.

THe *Stupor*, or (if we may so term it) the astonishment of the Teeth is Caused, I. Somtimes from the *Sowrness* either of meats, or of the Humors, or else of the fumes and vapors; which frequently befalleth those that are Hypochondriacal. II. Somtimes from the *imagination* at the Noise that is made in filing of hard mettals, or the Mastication and Chewing of sharp sowr fruits by one standing neer. If the sound be very acute, piercing, and making a loud crashing, then the imagination suffereth a kind of violence (the Application of the said noise being made within an extream narrow compass) and then next of al the Membrane of the sense of hearing being likewise as it were smitten is offended, and thereupon is immediately contracted, and together with it certain little Nerves also even unto the Root of the Teeth; into which place a new Air suddenly falling in and getting entrance, causeth a certain kind of horrour about the Teeth. It is Cured and taken away by Chewing of *Wax*, *hot* bread, *Cloth*, &c.

The *Stridor*, Grinding, or Crashing noise of the Teeth, proceedeth. *I.* From the imbecillity of the Jaw-bone *Muscles*, produced and caused by cold. II. From *Worms*, the brain being affected by Consent. III. From the multitude of *Vapors*, is in the beginnings of Paroxysmes. It is wont to threaten the Apoplexy, and likewise in Feavers the Deliry or Dotage; (in such especially as are not accustomed thereunto) in case this doting went not before the Feaver.

III. Nigredo or blackness, proceedeth from divers Causes, as wel *External*, as *Internal*. And these external are, a Careleſsness and neglect in Rubbing and Cleansing them; the use of sweet and hot things; and the anoynting of the upper parts with Quick-Silver or (as they commonly cal it) *Hydrarge*: These latter, to wit, the internal, are, 1. The Exspiration or breathing forth of Crudities by reason of surcharging the Stomach with meats or Drink. 2. A fault of the *Humors*, by reason of the impurity of the Bowels (and cheifly of the Spleen) left remaying behind after a Quartane Feaver. It is taken away by the Dentifrice Compounded of *Marsh-Mallow Roots, and of the Illirian Flower-de-luce*, Boyled in Water with *Salgem, and Alum*, of each alike, and as much as wil suffice, and after that throughly dryed in a Furnace, beaten together into a very smal powder, and mingled wel together with some few grains of Musk. There are other dentifrices that are formed and made of the *Jaw-bones* of the *Lucefish* or Pike, burned, *White Coral* and *Date Stones* burned, the *Bones* of the *Sepia* or Cuttle fish, and *Egg-shels* burnt, *Harts horn* burnt, &c.

Title, XII. *Of the Affects of the Gums.*

THe principal Affects of the *Gums* are, an Excrescence, and a *Purulis*.

I. The *Excrescence* is somtimes so great, by reason of the Spungy rarity and loosness of the Gums, and the abundant afflux of Blood, that the Teeth (and especially the Grinders or *Molares*) are quite covered over. The Excrescent flesh is somtimes Lax and loose, for-

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did, and flagging and if it be now and then touched upon, it sendeth forth likewise a crude blood. It is sometimes accompanyed with a putridness and rottenness; but then again it is often free from it. In the *Cure* we are to use Astringents, to wit, *Alum burnt*, *Sal Ammoniack*, *Mastick*, *Frankincense*, al of them reduced and made into a very fine flour; in case there be no putrefaction present; but if there be; then the *Green Water* of Platerus, and Hartman; and likewise the *Unguent* of the herb *Celandine*, are commended. And this that followeth is by frequent use found to be singularly useful, and therefore much approved of. Take Pouder of the *Leaves* of *Celandine*, *Sage*, *Crisped Mints*, and *Nut-meg*, of each half an ounce; *Alum burnt* one ounce, the *purest honey* four ounces. Let the Honey be throughly freed from its scum by the fire; and then when it is scummed, while it is yet hot, let the powders be sprinkled thereinto; and make a Liniment, for the anoynting of the Teeth therewithal.

III. *Panulis is an Inflamation of the Gums, extending it self inwardly unto the Root of the Teeth, and outwardly so sticking out, that even the neer neighboring parts are likewise distended, grow hot, and become Red.*

It getteth into, and setteth it self in the upper Jaw-bone, from the greater corner of the Eyes; and into the lower, by the Temples, out of the Veins there ending, upon this there followeth an *Impostumation*, the filthy corrupt matter whereof break forth and rusheth violently not unto the Skin of the Face, but unto the Roots of the Teeth, that are covered over with a thin Skin or covering. If the *Ulcer* be ill Cured, then there wil be a little piece of Flesh that wil stand out, and hang forth very much; and this is called *Epulis*. The way and Method of Curing this Inflamation *Parulis* is one and the same with that in al the other Inflamations. There may be the Vein opened that is under the Tongue. Useful likewise are *Cupping-Glasses* applyed unto the Nook of the Neck. In *Topical* Medicaments, it is to be observed, that al those that are rough, and of a corroding and biting quality, are to be abstained from. *Vinegar* must be forborn, in regard that it corrodeth the Gums that are in their own Nature soft and loose. In the *Epulis*, *Vitriol* sprinkled thereupon much benefiteth.

Title, XIII. *Of the Affects of the Jaw-bones.*

THe principal affects of the *Jaw-bones* are, *Immobility*, and *Reluxation* or loosness.

I. *Immobility*, or unmovableness, happeneth unto the nether Jaw-bone, *either* by Reason of some Luxation (when it is put out of Joynt) from a Coalition or growing together of the said Jaw-bone with the Head; *or else*, by reason of a distillation derived from the Crown of the Head, which floweth into the Joynt thereof at the Root of the Ear; there following upon the same a pain, and likewise a Hard and Conspicuous swelling: and hitherto appertaineth the *Scorbutical* Rigidness and stifness of the Jaw-bones.

II. *The* Luxation (*or disjoynting*) *of the Jaw-bone is, the rare but dangerous Depulsion and forcing of the same* (*in the one only or both parts thereof*) *unto the foremost parts. It is known* from hence, that in this case the Mouth cannot be shut, the speech is depraved, and the Mastication or Chewing of food taken away; and if the Process be disjoynted like unto a Bil or Beak, that which is inserted under the Jugal bone is made to become lower in situation than the Jugal bone it self, and is carryed forth without the same Jugal bone. Touching the *Cure* hereof it is to be noted; 1. That it is with al possible speed to be taken in hand, lest that the affected Muscles, (by Reason of those branches of the Nerves, which taking their original from the Second and fifth pair of the Brain are inserted into the Muscles moving the Jaw-bone) should likewise draw the brain into a Consent and agreement with them. 2. That if it be not restored, it then threateneth danger of Death, about the tenth day, with a continual feaver accompanying it, as also an irresistible necessity of sleeping. *It is divided* into that, *in which the Jaw-bone* is driven down in one part alone; (and then) it standeth forth from that part more toward the forepart; it and the Chin are inclined unto the adverse parts; the Mouth is writhed and standeth awry, and the inferior and higher row of the Teeth doth not so answer the one to the other, (as in truth they ought to do)

that the dog-teeth (as we cal them) ſtand directly under the *inciſorij* or Cutters; ſee for the Cure in the Profeſſors and Practitioners in Phyſick:) *and into that, in which the Jaw-bone is forced and down in both parts thereof*; and the Ranks or rows of the Teeth anſwer and fal in one with the other; the Mouth gapethmore, and a ſtuttering and ſtammering in the ſpeech followeth thereupon; the lower Jaw-bone can by no means be Joyned cloſe with the upper, but this ſtandeth out further than that. It is the more dangerous, in regard of the Affect of thoſe four Muſcles that draw upward the Jaw-bone, and likewiſe of the Nerves inſerted into the ſaid Muſcles; from whence proceedeth pain, an Inflamation, an acute Feaver, and Griping pains of the Stomach. As for the *Cure*, See as above.

Title, XIV. *Of the Affects of the Wind-pipe or Weſand.*

THe Principal Affects of the *Weſand*, are, *Laxation*, and *Inflamation*.

I. *Laxation is, when it (to wit, the Weſand) preternaturally ſwelling up (yet without any Inflamation) for the moſt part from a Flegmatick Humor tranſmitted from the brain, is extended into an extraordinary length.*

And it is then called *Cionis Chalaſmene*; but it is termed *Staphule*, or the Grape, when in its lower part Waxing thick and growing round, it becometh more ſlender than that above which it hangeth; ſo that it beareth the reſemblance of a grape hanging by its little foot. But then (to tel you the truth) it lyeth upon the Root of the Tongue, and the Jaws, with a kind of troubleſom Titillation or tickling; with which whoſever is affected, he is perpetually ſtriving and endeavoring (but al in Vain) to devour it; fearing leſt that by the impetuous violence thereof he ſhould be ſtrangled. The *Columella* it ſelf becometh ſoft, ſomwhat whitiſh, and of the ſame color with the Palate, without pain and heat. The Humor is ſent down from the brain; and this eſpecially cometh to paſs in Catarrhes. This Affect *is Cured* like as the Inflamation. If the Columella be Eaten through, the ſharp Humor is to be tempered and qualifyed; and after this *Abſterſion* or Cleanſing muſt follow. That which is here of ſingular benefit, is, a *new laid Egg* Boyled unto a hardneſs, cut through the midſt, and for ſome hours applyed to the Crown of the Head; in Infants, *a clean Paper* four double, wel wet in the Mothers Milk and Roſe water (as much of one as of the other) applied and laid upon the Crown of the Head; a Powder compounded of Long Pepper one ſcruple, the *Juyce of Acacia*, and *Tormentil Roots*, of each two ſcruples; and ſo blown in after the uſe of an Aſtringent Gargariſm.

II. The *Inflamation of the Weſand*, is, the riſing or ſwelling of the ſame, from a Cholerick Blood fallen down into it, with a redneſs, burning heat, pain, danger of ſuffocation, and ſomtimes alſo with a Feaver. The buſineſs is here alike as in other Inflamations.

Title, XV. *Of the Affects of the Tonſils.*

THe Principal Affects of the *Tonſils* are, an *Inflamation*, and an *Ulcer*.

I. *The Inflamation of the Tonſils is a riſing or ſwelling up of them, produced by the afflux of Humors.*

It *is known* within under the Jaw-bone by the touch, and by the ſight thereof; where like unto a ſmal Gobbet ſticking in the Jaws, it preſſeth by its weightineſs, and hindereth, ſo that neither Meat, nor drink, nor ſpittle, can eaſily paſs through either up or down. There are alſo preſent, pain, a burning heat, redneſs, and a thirſt; and it falleth more eaſily into the Tonſils than the Weſand, by reaſon of the ſoftneſs and looſneſs of its proper Temperament, and likewiſe its place. *It ariſeth Externally* in *little Children*, by Reaſon of their Voracity, and inſatiable feeding (the Greeks cal it *Addephagia*) unto which there is likewiſe added a weak and tender Conſtitution of Body; in *Children that Suck*, by Reaſon of ſome fault and pravity in the Milk: in *Girls*, from an inſufficient Purgation of the *Menſtrua* or Monthly Courſes: in *thoſe of Riper Age*, by Reaſon of their overmuch drinking of that wine that is not firſt diluted and weakened; as alſo their much

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and more greedy of al sorts of Meats, but more especially those that are sharp and rough *Internally*, from the afflux of humors that are hot and sharp. *Cured it is* after the same manner as are other inflamations: yet this notwithstanding is attentively to be heeded, that somtimes the Tonsils are made the harder by the over frequent use of Coolers and Repellers.

II. Touching *Ulcers*, these things come in the next place to be taken notice of, I. That there is the less danger in them, if they be without a Feaver. II. That those of them that appear, in the heat of Summer (because they then immediatly creep forward) are worse than those that arise at other times. III. That they may somtimes be and appear (without any Inflamation at al) either from some Salt distillation eating through those parts, or else from some Vapor or Exhalation ascending upwards, which happeneth in the Venerial or French disease; and somtimes again from other Causes, the Spring time, and a Pestilential Air. IV. That some of these Ulcers are *Familiar* and milde, (which are smal, clean, not descending very deep, neither inflamed, nor exciting any pain;) Others *Malignant* and *Pestilential*; and these are broad, Hollow, growing Nasty and filthy by reason of some congealed Humor that is either white, or black, or Livid, black and blew: but now if these aforesaid congealed impurities descend deeper, then there is bred that which we term an Eschar, or Crustiness. V. That those of them that Creep about the Jaws, with much trouble and annoyance; Cause a difficulty of breathing; but that if by the *Trachæa* Artery they Penetrate into the Breast, they then strangle the Party the very self same day. In the *Cure*, we are to understand, that al the Ulcers of the Mouth (as wel) lest that they Creep and proceed further, as also becaus that they evermore become the moyster by Reason of the Spittle, do need and require the stronger sort of Astringent Medicaments. And thus much touching the Diseases of the Head.

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that the dog-teeth (as we cal them) ſtand directly under the *inciſorij* or Cutters; ſee for the Cure in the Profeſſors and Practitioners in Phyſick:) *and into that, in which the Jaw-bone is forced and down in both parts thereof*; and the Ranks or rows of the Teeth anſwer and fal in one with the other; the Mouth gapethmore, and a ſtuttering and ſtammering in the ſpeech followeth thereupon; the lower Jaw-bone can by no means be Joyned cloſe with the upper, but this ſtandeth out further than that. It is the more dangerous, in regard of the Affect of thoſe four Muſcles that draw upward the Jaw-bone, and likewiſe of the Nerves inſerted into the ſaid Muſcles; from whence proceedeth pain, an Inflamation, an acute Feaver, and Griping pains of the Stomach. As for the *Cure*, See as above.

Title, XIV. *Of the Affects of the Wind-pipe or Weſand.*

THe Principal Affects of the *Weſand*, are, *Laxation*, and *Inflamation*.

I. *Laxation is, when it (to wit, the Weſand) preternaturally ſwelling up (yet without any Inflamation) for the moſt part from a Flegmatick Humor tranſmitted from the brain, is extended into an extraordinary length.*

And it is then called *Cionis Chalaſmene*; but it is termed *Staphule*, or the Grape, when in its lower part Waxing thick and growing round, it becometh more ſlender than that above which it hangeth; ſo that it beareth the reſemblance of a grape hanging by its little foot. But then (to tel you the truth) it lyeth upon the Root of the Tongue, and the Jaws, with a kind of troubleſom Titillation or tickling; with which whoſever is affected, he is perpetually ſtriving and endeavoring (but al in Vain) to devour it; fearing leſt that by the impetuous violence thereof he ſhould be ſtrangled. The *Columella* it ſelf becometh ſoft, ſomwhat whitiſh, and of the ſame color with the Palate, without pain and heat. The Humor is ſent down from the brain; and this eſpecially cometh to paſs in Catarrhes. This Affect *is Cured* like as the Inflamation. If the Columella be Eaten through, the ſharp Humor is to be tempered and qualifyed; and after this *Abſterſion* or Cleanſing muſt follow. That which is here of ſingular benefit, is, a *new laid Egg* Boyled unto a hardneſs, cut through the midſt, and for ſome hours applyed to the Crown of the Head; in Infants, *a clean Paper* four double, wel wet in the Mothers Milk and Roſe water (as much of one as of the other) applied and laid upon the Crown of the Head; a Powder compounded of Long Pepper one ſcruple, the *Juyce of Acacia*, and *Tormentil Roots*, of each two ſcruples; and ſo blown in after the uſe of an Aſtringent Gargariſm.

II. The *Inflamation of the Weſand*, is, the riſing or ſwelling of the ſame, from a Cholerick Blood fallen down into it, with a redneſs, burning heat, pain, danger of ſuffocation, and ſomtimes alſo with a Feaver. The buſineſs is here alike as in other Inflamations.

Title, XV. *Of the Affects of the Tonſils.*

THe Principal Affects of the *Tonſils* are, an *Inflamation*, and an *Ulcer*.

I. *The Inflamation of the Tonſils is a riſing or ſwelling up of them, produced by the afflux of Humors.*

It *is known* within under the Jaw-bone by the touch, and by the ſight thereof; where like unto a ſmal Gobbet ſticking in the Jaws, it preſſeth by its weightineſs, and hindereth, ſo that neither Meat, nor drink, nor ſpittle, can eaſily paſs through either up or down. There are alſo preſent, pain, a burning heat, redneſs, and a thirſt; and it falleth more eaſily into the Tonſils than the Weſand, by reaſon of the ſoftneſs and looſneſs of its proper Temperament, and likewiſe its place. *It ariſeth Externally* in *little Children*, by Reaſon of their Voracity, and inſatiable feeding (the Greeks cal it *Addephagia*) unto which there is likewiſe added a weak and tender Conſtitution of Body; in *Children that Suck*, by Reaſon of ſome fault and pravity in the Milk: in *Girls*, from an inſufficient Purgation of the *Menſtrua* or Monthly Courſes: in *thoſe of Riper Age*, by Reaſon of their overmuch drinking of that wine that is not firſt diluted and weakened; as alſo their much

and

and more greedy of al ſorts of Meats, but more eſpecially thoſe that are ſharp and rough *Internally*, from the afflux of humors that are hot and ſharp. *Cured it is* after the ſame manner as are other inflamations: yet this notwithſtanding is attentively to be heeded, that ſomtimes the Tonſils are made the harder by the over frequent uſe of Coolers and Repellers.

II. Touching *Ulcers*, theſe things come in the next place to be taken notice of, I. That there is the leſs danger in them, if they be without a Feaver. II. That thoſe of them that appear, in the heat of Summer (becauſe they then immediatly creep forward) are worſe than thoſe that ariſe at other times. III. That they may ſomtimes be and appear (without any Inflamation at al) either from ſome Salt diſtillation eating through thoſe parts, or elſe from ſome Vapor or Exhalation aſcending upwards, which happeneth in the Venerial or French diſeaſe; and ſomtimes again from other Cauſes, the Spring time, and a Peſtilential Air. IV. That ſome of theſe Ulcers are *Familiar* and milde, (which are ſmal, clean, not deſcending very deep, neither inflamed, nor exciting any pain;) Others *Malignant* and *Peſtilential*; and theſe are broad, Hollow, growing Nafty and filthy by reaſon of ſome congealed Humor that is either white, or black, or Livid, black and blew: but now if theſe aforeſaid congealed impurities deſcend deeper, then there is bred that which we term an Eſchar, or Cruſtineſs. V. That thoſe of them that Creep about the Jaws, with much trouble and annoyance; Cauſe a difficulty of breathing; but that if by the *Trachæa* Artery they Penetrate into the Breſt, they then ſtrangle the Party the very ſelf ſame day. In the *Cure*, we are to underſtand, that al the Ulcers of the Mouth (as wel) leſt that they Creep and proceed further, as alſo becauſe that they evermore become the moyſter by Reaſon of the Spittle, do need and require the ſtronger ſort of Aſtringent Medicaments. And thus much touching the Diſeaſes of the Head.

THE

THE NINTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the Diſeaſes of the middle Venter or Region.

Title, I. *Of the Diſeaſes of the Jaws, or Angina, that is, Squinancy.*

AND thus much ſhal ſuffice to have been ſpoken touching the Diſeaſes and Affects of the Brain. There follow now the Diſeaſes of the *Middle Region*; which Contain and Comprehend under them the Affects of the *Jaws*, the Throat, the Aſpera Arteria or rough Artery, the *Lungs*, the *Cheſt*, the Teats, and the *Heart*.

The Diſeaſe of the *Jaws* is that we cal *Angina*, (or the *Squinancy*, *but more vulgarly the* Quinſey) *or the ſhutting up (as it were) of the* Jaws, *that is, of the Supream parts of the Gullet and the throat, through which is an entrance and Paſſage not only for the meat and drink, but likewiſe for the Breath; Producing and Bringing along with it a Difficulty both of breathing and Swallowing.*

The *Common ſigns* are, Difficulty of breathing, in regard that the Throat is in a manner ſtopt and ſhut up; the *Impediment* or hinderance of the *Swallowing*, as wel in regard that the Gullet is obſtructed; as that likewiſe the two Muſcles deriving their Original from the Larinx (called *Oeſophagici* and Circulatores, becauſe they embrace and encompaſs about the *Oeſophagus* with their tranſverſe Fibres reſembling a Semicircle) are buſied in helping forward the thruſting down of the Meat and Drink unto the inferior parts, whileſt that they draw up the Larynx, in the time of ſwallowing, that ſo it may give way unto the food, whether Meat or Drink: as alſo, in regard that the Muſcles of the Jaws thruſting down the food unto the *Oeſophagus*, (while they are Contracted

tracted and drawn together unto the place where they begin) do here ſuffer. *A pain about the Jaws*, which is either augmented or diminiſhed, according to the quality and condition of the Cauſes and the ſubjects.

The *Cauſes* are al things whatſoever that are apt to ſtop the breath, as we ſhal further ſhew you in the differences.

So for *Cure* in the differences.

In regard of its cauſes, *it is divided into three* ſorts *or kinds*; the firſt whereof hath comprehended under it *four* ſpecies.

I. One is *from an Inflamation, which is knowen* by the continual fever accompanying, if withal there be together preſent ſuch other things as uſually concur. *It hath its original* from that blood that floweth into thoſe parts from out of the branches of the Jugular veins; there going before, for the moſt part, a difficult moveing of the neck, without any apparant cauſes, and withal a certain pain; as likewiſe an unuſual heat about the Jaws. It is *very hardly cured*, if there be preſent a great and Intence feaver the ſpittle ſomwhat dry, Clammy and thick. The *Event* of the Cure is ſomewhat *doubtful*, if (the matter being tranſmitted into the Lunges) there ariſe an Empema or impoſtamation of the Lungs to the Head, if it exciteth and cauſeth a doting, or delire: if to the *Pleara* Membrane, it cauſeth a pain of the whol Breaſt, with a cough, and difficulty of breathing: if unto the heart, it then introduceth and brings along with it a kind of trembling, and almoſt undiſcernable beating of the pulſes. There is no hopes at al if the fever prevail the greateſt heighth and intenſenes; if the face of the ſick perſon become greeniſh, if the angles or corners of the Eyes ſomewhat black and thick; and laſtly, if there appear froth about the Mouth, in regard that it ſignifieth an extream ſtreightning of the heart. The *Cure* is to be ordered according to the rule and method in other inflamations; which are notwithſtanding there come theſe few peculiar things to be obſerved. Touching *Veneſection*, is to be noted, 1. If it be doubtful whether ſide thereof be the more afflicted, (ſince that the Liver is the part tranſmitting) the blood ought then to be drawn forth of the right arm. 2. Where there is not ſo great a difficulty of brathing, the blood may be drawn forth the more freely and plentifully, but when the difficulty of breathing is great, there ought to be the leſs blood taken away, and that at ſeveral times, and the intervall of four or five hours betwixt. 3. That if Cuppinglaſſes be forthwith applyed unto that part that is higheſt unto the place affected, then there wil be excited in that ſayd part the Greater Conflux; and therefore they ought to be put upon the Reines, and not upon either the Arm or Neck. *Purgation* is forthwith in the very beginning, to be ordayned. *Repellers* ought inwardly to be adminiſtred unto the Jaws; and this eſpecially indeed in the form of Gargariſmes, Mouth-waſhings (termed Colluctions) and Luctures. And here there is commended, *Lapis prunella*, The Compoſition, of Mulberries, *Muſt* (or new Wine) and *Nutſhels*; (in regard that it hath in it an extraordinary aſtringent quality and power;) thoſe Medicaments that are formed of *Sengreen*, *Plantane*, and *Purſlane*, &c. On the third or fourth day *Digeſtives* are to be mingled together with Repellers. In the Declination of the Diſeaſe, the *Aſhes of burnt Creviſes* or Crabs is to be wel mingled with Honey; or the *White Excrements of a Dog*, or that of a *Hen*, or that that is taken out of the *Swallows Neſt*, poudered, and ſierſed. Among the *Maturatives* or Ripeners, there is the pith or pulp of *Caſſia*, kept a while in the Mouth, Gargariſms of blood warm milk with Sugar; The *Emplaſter* that is formed of *Marſh-mallows* and the *Common Mallows*, of each one handful, *Camomile Flowers*, *Melilote Flowers*, *Linſeed*, *Fenugreek Seed*, of each half a dram; ful and fat figs, in Number ten; wheaten meal, two Pugils or little handfuls. For *the breaking* thereof, excellent good is the Cataplaſm of the Cream of the new and freſh roots of the flower-de-luce, with butter and the Oyl of Violets. Among the *Specifical* remedies are, the Muſhrom or the *Elder Tree*, boyled and drunk; the *Pouder of Swallows*, if after they have had Salt caſt upon them, they together with their feathers, be burnt in an Earthen Veſſel; and the Aſhes mixed with Honey ſpread and anoynted upon the place affected; one ſcruple of the *Shavings* of the Bores *tooth*, if it be mingled with half an ounce of the Oyl of ſweet Almonds, and ſweetned with white Sugar Candy; and laſtly, the ſecret of *Guntzmannus*, mentioned by *Hartman*. In the Patients diet we are to come at length unto *Nutritive Clyſters*. *It is divided* in a twofold manner. 1. Into *four ſpecies* or kinds, *Cynanche*, &c. Of which more below, Number, 4. 2. Into *that* that is from *Pure blood*, in which there is a greater diſtenſion of the Neck, and the color of the Face is ſomwhat Red; and into *that* which proceedeth from a

Flegmatick

Flegmatick blood in the which al the Symptoms are more mild and Gentle.

II. One is from the *Relaxation of the Vertebræ of the Neck*, and then either a fal or a blow went before it as its efficient Cauſe; or elſe ſome Humor or other hath preternaturally looſened the Joynts and Ligaments of the Vertebra, or otherwiſe hath diſlodged them from their proper ſeat; there appeareth here none of thoſe ſigns, that in the others are manifeſtly diſcovered: the Neck is hollowed behind; and is not to be turned, about the *Oeſophagus*; without much ado, and pain withal. The pain is felt, if the part affected be but externally touched: the Tongue falleth forth from its proper place. The *Cure* is to be ſought for in its own due place, that is to ſay, from its ſourſes, ſpring, and Fountain.

III. One is from a *Pituitous* or Phlegmatick *defluxion* reſiding upon the Joynts and the Muſcles of the Neck; and then the pain is not great and violent, but dul and heavy; the ſwelling is ſomewhat broader, but then it hath in it very little or no redneſs; there is preſent no fever, or if any, it is but moderate. The voice waxeth hoarſe, there is great ſtore of ſpittle, the ſick Perſons alwaies gape with open mouth and drawing Air, there is likewiſe ſome difficulty in ſwallowing, but yet without any great hazard of ſuffocation. The *Cure* is to be ordered according to that of a Catarrh.

IV. That which ariſeth *from an inflamation*, one is called *Cynauche*, which lyeth hid in the internal Muſcles of the Larynx or the Throat; and then whether inwardly in the Jaws, or outwardly in the Neck, appeareth there any redneſs or ſwelling at al; but the Jaws are ſo vehemently pained, together with great danger and peril of ſuffocation, that the diſeaſed perſons are enforced to take in the Air and to breath with their neck erected ſtrait and upright, and with open mouth. The fever that accompanyeth it is moſt acute; and the diſeaſe ſtrangleth the party, within four days at the utmoſt, but very uſually within eighteen hours time. That which in this caſe much profiteth is *Cupping glaſſes* applyed unto the veins under the tongue: touching which ſee further in *Zacutus Luſitanus* in his eigth book. Chap. 2.

Another is that we cal *Paracynauche*, which ſticketh and hath its reſidence in the external Muſcles: and then there is to be found within a certain ſwel ng and redneſs, the mouth being drawn aſide and writhed after a ſtrange manner, and the tongue depreſſed and kept down: if it vaniſh away at any time when there is no *criſis* to be expected, and a little ſwelling or riſing appear (but yet ſuch as is altogether void of pain) which cannot be ſuppurated either by the Vigor of Nature, or the help and benefit of Art, it then threateneth Death, and a return of its red color; the former, in regard that the thick matter being left al without, the more thin, and hotter part thereof is converted unto the throat; the latter, by Reaſon that there is likewiſe (by ſome accident) a hotter kind of matter driven inwardly.

Another *Synanche*, which is conteined in the interior ſpace or Cavity of the Jaws; and then, it likewiſe extendeth it ſelf unto the Root of the Tongue, and comprehendeth the Neck it ſelf; there is then alſo apparently to be diſcerned a ſwelling and a redneſs (in the outward parts) together with pain and heat; the which ſaid ſwelling if it have recourſe unto the more internal parts without any manifeſt cauſe, it then ſuddenly vaniſheth away upon thi tranſlation of the matter: the Symptomes ares here never a whit more milde and gentle than in the other ſorts, but yet notwithſtanding there is here greater hopes of ſafety, in regard that the Inflamation advancing into the outward parts, may poſſibly be drawn forth, and digeſted.

Another is that we cal *Paracynanche*, the which ſeizeth upon the Neck alone, and the Muſcles thereof, that appertain unto the Tongue and the *Hyoid* bone. This of al the reſt is leaſt to be feared as having leaſt danger in it, becauſe of its diſtance from the Throat; as alſo by Reaſon of the conſtitution of the parts affected, which being Kernelly, ſoft, and looſe, may the better without any difficulty receive the Humor that floweth unto it, in regard that the Muſcles of the *Larynx* are not inflamed, neither the way and paſſage of breathing intercepted and ſtopt.

V. One is that, which is diſſolved and removed by a *Diaphoreſis* or Sweat, the Cauſe thereof being thereby diverted, drawn back, Evacuated, or at leaſt diſperſed and ſcattered. Another, that is Cured *by Maturation*, and the Evacuation of the *Pus* or corrupt Matter out of it, being firſt opened. Another, which is terminated and ended *by the Tranſlation of the Peccant matter unto ſome other Part*; which is known by the ſudden and unexpected ceſſation of the ſwelling and the pain, and likewiſe

wise by the alteration and change of the Pulse. The matter is Transferred, 1. *Unto the Brain*, and then there followeth a grievous pain of the Head, a Phrensie, and a Dotage. 2. *Unto the Muscles of the Neck*, and then there is usually produced and excited an extream pain, a swelling, and somtimes a Convulsion. 3. *Unto* the *Lungs*, *and the Pleura* Membrane, and then there ariseth a pain of the Breast, Cough, and difficulty of breathing. 4. *Unto the* Heart; whereupon a Trembling, swooning; and an obscure and weak pulse affect the Diseased Party.

Title, II. *Of the Diseases of the Throat.*

A Single Chapter, *Of those Kernels we cal* Strumæ, *and of* Bronchocele, *a swelling in the Throat.*

THe Diseases of the throat, are *Strumæ*, and *Bronchocele.*

I. Strumæ (*commonly called* Scrofulæ, *or the Kings Evil*) *in the Throat are swellings in the Glandules or Kernels, generated of thick and Clammy Flegm, and included in their own proper Membrane.*

There is no need here of many SIGNS; the swellings are round, Pendulous and hanging, easily moved if touched, and such as are separable from the Skin.

The CAUSE is flegm, which is somtime alone, but other while conjoyned with Melancholly, it ariseth from Meats that afford a Crude, raw, and thick Juyce, and thereupon it is most Familiar unto Infants, and such as are yet in the state of Child hood. It may especially likewise be thrust and made to appear by those Waters that contein in them Mercury or Quick Silver, such as are those in *Carinthia*, *Styria*, and about the *Alpes*. It is somtimes (together with a nourishing Juyce, if the said Juyce offending in quantity be not wholly consumed and wasted) by Nature sent unto the Glandules as unto the more ignoble parts. The Membrane in which they are included is never by the Formative Faculty produced in Vain, or to the end it should be idle and of no use. For when as the Memberane is distended by the Superfluous Humor in great abundance thereunto flowing, and haply likewise thereby broken, Nature then attempteth as it were the contexture and forming of a new kind of Membrane.

The CURE dependeth cheifly upon the Particulars following. I. The matter that is the Cause thereof ought to be Evacuated. II. The same matter is to be wholly wasted and consumed with the Herb *Scrophularia* commonly called blinde Nettle, and Water *Betony*, *the Root of the dead Nettle*, the Roots of Herbs, *Filipendula* and *Gladiotus*, but especially the *Root* of the shrub *Ruscus* or Butchers broom; of which there is to be taken (after it hath been reduced into a smal pouder) every day for a while one dram thereof in wine. III. The said matter is to be cut and dissipated by Emollient Topicks. And for this purpose there are commended the *Leaves of the Cypress Tree*, the pouder whereof being sprinkled with Wine, let it be so made up into one Mass or Lump; and then let the aforesaid Strumæ or kernels be anoynted therwith for two or three daies. IV. It is to be suppurated, and when it is brought unto *Pus* or Matter, then the swelling is to be opened, the *Pus* or filth to be emptyed forth, the hollow or Cavity thereof to be throughly cleansed, and purged; and lastly to be filled up again with Flesh.

II. *Branchocele is a swelling in the throat, sticking and strutting forth so that it taketh up much room; arising from a windineß, and conjoyned with an extension.*

The aforesaid windiness breaketh in under the Skin, and the general Membrane, that is situate under, and knit unto the Skin in the more inward parts of the Neck. It *is Caused* by the Air, which, (when the Skin, whose Membrance in that place is more thick, and somwhat more red than else where) is violently pulled away from those seats and places that are subjected unto the *Aspera Arteria* or rough Artery, and the Anterior Muscles of the Neck, by some extraordinary vehement streining of the Body (and this often cometh to pass, whilest the breath is long held in, that so the Excrements, or the infant in Child-bearing may the better and more speedily be thrust forth; or when Trumpets are strongly blown, and thereby the Cheeks extreamly swollen and puffed out) and being rent and divided as aforesaid, it causeth and produceth there a void

and empty ſpace) to prevent a vacuity breaketh in, and ſo elevateth and liſteth up the Skin and Membrane into a Tumor or Swelling.

Title, III. *Of the Diſeaſes of the Aſpera Arteria, or the great rough Artery.*

THe Diſeaſes of the *Aſpera Arteria* are, *Aſperity* or roughneſs, *Narrowneſs* or ſtreightneſs, *Wounds*, and *Ulcers*.

I. *Aſperity* or roughneſs, *which is* a want or defect of the *Natural Smoothneſs*, *is known* by the hoarſneſs of the Voice. Either *from Externals*, as from Oyl, if by Reaſon of its Age, or frying therewithal, it become Rank; from Nuts, from duſt, from Smoak, &c. Or elſe *from Internals*, either *Humors* fallen down from the Head; or elſe *A Vapor* ſtriking upon the foldings thereof. *It is to be Cured* by thoſe Medicaments that moiſten, Mollifie, and make ſmooth; and theſe Medicaments (termed Arteriacal) either they are wholly void of al kind of Mordicacity and biting quality; to wit, *Butter*, *Milk*, *Sweet Muſt*, the *Decoction of Raiſons*, *Liquorice*, *Jujubes*, *Tragacanth*; or withal abſterſive, as, *Sugar*, the *Honey* or Juyce *of dryed Figgs*, the *Sugar* of *Penidies*, the *Syrup* of *Violets*, and of *Jujubes*; or elſe with a kind of Acrimony and Tartneſs; as *Hyſſop*, *the Flower-de-Luce Roots*, *Nettle Seed*, *ſpike*, *Frankincenſe*, and *Mirrh*. But that which is here moſt profitable and expedient, is, that ſort of Pills that we term *Bechichæ*, likewiſe the Troquiſches *Bechici*, and the Oyl of *Sweet Almonds* with Sugar Candy.

II. The ſtreightneſs or narrowneſs of the Rough Artery *is known* from the difficulty of breathing, and the fear of a neer approaching ſuffocation and ſtrangling, which is ſomtimes greater, and ſomtimes leſs. *It ariſeth* either from thoſe *Cauſes that Compreſs* or preſs it down, as the Relaxation or Looſening of the Vertebræ, Inflamations, Swellings, the halter, &c. Or elſe from thoſe *Cauſes* that *Obſtruct*, as things external fallen thereinto; which are to be removed. Or elſe internal, to wit, Humors thick, and of a ſlimy and Glutinous Nature, (which are to be Cut, attenuated, and cleanſed forth, with the Syrup of *Maiden hair*, *Horehound*, and *Liquoriſh*) or by reaſon of Purulent matter, and ſmal ſtones, (Particularly that called *Grando*) bred in the Lungs, and a certain kind of fleſh that is bred and brought forth after wounds and Ulcers.

III. *Wounds*, either they touch only the *Superficies* thereof, and then they may be cured; or elſe they touch the *Cavity* thereof; and then the Air paſſeth forth in ſuch a manner, that if a candle be put thereinto it is forthwith extinguiſhed: if the Cartilaginous ſubſtance be wounded, (eſpecially after a tranſverſe manner) it can hardly ever be brought to unite again; if the wound be betwixt the two little rings thereof, they are now and then Healed.

IV. Touching *Ulcers* take this advertiſement, to wit, that they ariſe from Humors that are ſharp and Salt, from Poyſons, and from Medicaments: and that they afflict with pain, ſpitting of Blood, (pure in the beginning, but afterwards purulent) inſomuch that even ſcales, and a kind of Cruſtineſs may now and then be caſt forth: If they ſeize upon and poſſeſs the Internal Cavity, they are then, (by reaſon of the Nature and Situation of the Parts) very hard to be Cured: and laſtly, that if the Cartilages be eaten through, and that there happen thereupon any putrefying affect, it is then altogether incurable.

Title, IV. *Of the Diſeaſes of the Lungs.*

Chap. 1. *Of the Diſtemper of the Lungs.*

THe Diſeaſes of the Lungs are, *Intemperies*, *Peripneumonia*, *Anguſtia*, or ſtreighneſs, a Wound, *Phthiſis* or *an Ulcer*.

The Diſtemper of the Lungs is the declining thereof from its natural temper unto that which is preternatural, as wel by reaſon of External as Internal Cauſes.

The SIGNS ſhal be expreſſed in the Differences.

The CAUSES are either *External*; (and theſe

theſe likewiſe various, to wit, cold or hot potions) medicaments applied, the Air that being little or nothing altered is carried and conveyed unto the Lungs, in ſuch as are deſtitute of the columella) or elſe they are *internal*, to wit, the *Humors* that are drawn along thither either from the Head, or elſe from ſome other parts, but frequently from the Liver.

The CURE is to be ordered according to the ſeveral Cauſes: where, in regard of the humors, take notice. 1. That in reſpect of the ſituation of the part it is not to be removed without much difficulty; yet notwithſtanding that it ought to be evacuated. 2. That if there be there a greater ſtore than ordinary of flegm, it is then more fitly to be removed with thoſe Remedies that expectorate and mollifie (ſuch as are Eryngo Roots; and marſhmallow roots, common mallows, and Rayſins) than by thoſe medicaments that cut. 3. That many hot remedies are not here convenient, leſt that the thinner parts being waſted, the thicker remain behinde. The beſt remedy in this caſe is *Linſeed.* 4. That if there be preſent an acute feaver together with the matter; we ought then to abſtain from thoſe medicaments we cal *Eclegmata*; for theſe by their dryneſs and clammineſs do much if not wholly ſupreſs expectoration; from whence there followeth a more frequent reſpiration, or thicker fetching of the breath; and the matter alſo by the extraordinary heat becometh the more contumatious and obſtinate.

The Diſtemper of the lungs *is divided* after a twofold manner.

I. One is *without matter*, which indeed hath in it no danger at al of ſuffocation, and is alſo more eaſily cured: Another *with matter*, which is to be Evacuated and drawn back, like as we ſhewn above.

II. One is *hot*, *which is known* by this, that the Cheeks by reaſon of the fumes aſcending become red; and that there is evermore a dryneſs of the tongue (together with a thirſt) which can no way be qualified but by the breathing and drawing in of the cold Air; infeſting the ſick perſon; and likewiſe that the breathing is more than uſually frequent and ſwift. In the *Cure* Cooling medicaments (which through the rough artery are thither to be conveyed) ought to be adminiſtred; *where note*, 1. That thoſe medicaments that are mainly cooling and repelling are altogether enemies and offenſive to the Breaſt, by intercepting the paſſages of the blood and ſpirit, and by their weakening and impayring the very nature of the Breaſt, ſince that it is Cartilaginous and bony 2. That among the principal internal Remedies we are to account both the white and black *Poppy*, *Rhear*, *Violets*, *Endive*, *Barly*, *Water-Lilies* and their ſyrups. 3. That the diet ought to be conformable; and that for a drink and potion, the *water of barly with the Syrup of Violets* is excellent good.

III. Another is *Cold*, *which is known* by this, that Cooling Cauſes went before; that the Breathing is but weak, ſlow, rare, and the Pulſe like thereunto; and that the Breath that cometh forth is colder then ordinary. In the *Cure* we are to Uſe medicaments that heat; among which theſe are to be accounted of as very fit and proper, to wit, *ſaffron*, which is as it were the very life and ſoul of the Lungs, the Extract of *calamus Aromaticus*, *old treacle*, *Coltsfoot*, *Nicotiana* or tobako, *ſcabious*, *the root of the Flower-de-luce*, and the root of *Aron* or Cuckowpint, prepared; *Elixir proprietatis*, that *Mixture* they term *Simplex oxymel Scillitick*, &c.

IV. One is *Moiſt*; *which is known* by this, that the voice is hoarſe, the breathing thick and frequent, with a kind of wheezing, ſnorting, and much ſpittle. In the *Curing* hereof we ought carefully to avoid thoſe medicaments that are overdrying and aſtringent. The Chymical oyl of *ſulpher*, and the *flowers of ſulphur* or brimſtone, (the ſhops cal this latter *flores ſulphuris*) in a rere egge that may be ſupped up; the wine wherein the *eyes of crabs* or creſiſhes have been mucerated, *ſaſſafras*, *China root*, &c. are here of ſingular uſe and benefit.

V. Another is *dry*; *which is known* by this, that perſons thus affected waſt and conſume away without any Ulcer at al; that the breathing is very little and weak, but thick and ſhort; that there is preſent a continual thirſtineſs, and but ſmal ſtore of ſpittle. In the *Cure* hereof, *Rayſons of the ſun*, *womens breaſtmilk*, *and Aſſes milk*, *the deſtilled* water of *Tortoiſes*, *the broth of veal*, *and the conſerve of violets*, are eſpecially good and profitable. Externally, a Bath of ſweet water ought to be Preſcribed.

Chap. 2. *Of Peripneumonia.*

PEripneumonia *is an inflamation of the Lungs from blood poured forth into the ſubſtance thereof*, *with a ſtraightneſs of the*

Breast, a difficulty of breathing, an acute Feaver, and a cough.

The SIGNS *are*, the *narrowneſs* of the *Breast*, with a dul and heavy pain, that extendeth it ſelf and reacheth even unto the *ſpina* or Backbone; where the membrains that touch upon the *Pleura* are faſtened and upheld; and this pain is more remiſs and moderate; unleſs the membrain be together inflamed; but if it be, then the pain withal becometh extreamly pricking. There is likewiſe a *difficulty* of *Breathing*, and indeed greater than that in a Pleuriſie; ſo as that the ſick perſon is (with extream hazard and peril of ſuffocation) enforced in a ſtrait upright poſture to draw his breath, the breſt or *Thorax* in that kind of ſituation being the more eaſily dilated, forasmuch as in thoſe that ly along in their beds it falleth down, becauſe that the parts of the Thorax or breaſt decline and reſt themſelves upon the *ſpina* or backbone, which being erected, the Thorax is likewiſe together born out, and ſo is no longer heavy and burthenſom unto it ſelf. The aforeſaid *Reſpiration* is ſublime, ſo that in it the very top of the Thorax is moved, even unto the very covering of the ſhoulder-blades: it is alſo frequent and often in the begining, and likewiſe it is greater than ordinary; which in a ſhort time (by reaſon of the weakneſs and decay of the natural vigour, and the inſtruments of breathing) is chainged into that which is far leſs, and is increaſed by the frequency thereof. The *Breathing* is hot; and becauſe that by the expulſion of the ſooty and miſty vapours the Heart is lightened, they are therefore the more eaſed and lightened, the more they breath forth the aforeſaid offenſive and oppreſſing fumes. The ſharpneſs of it in a feaver is greater than in the pleuriſie in regard of the neer neighborhood of the heart; and hereupon, there exhale hot vapours unto the Head, which hurrying the blood along together with them, make an impreſſion upon the cheeks, (where the skin is but thin) and ſo cauſe the face to become red; the eyes and the Temple veins ſwel; the cough is very troubleſom, by reaſon of the affect of the Lungs. It is conjoined and accompanyed with *ſpitle*, that is ſent forth at firſt with a kind of thinner putrefied and rotten matter, and by and by dyed with blood, and likewiſe otherwhile otherwiſe colored; and ſomtimes it is ſpit forth ful of froth.

The CAUSE is blood, which is poured forth of the right angle or cornor of the Heart into that vein that we cal *Arteriosa*, and ſo filleth not only the veins and Arteries of the lungs, but likewiſe alſo the whol body. It is rayſed and ſtirred up from external cauſes, as a cold Air, and eſpecially the cold northern Air immediatly following upon the ſoutherly; the drinking of generous and ſtrong wines; a violent and more vehement motion, after long reſt and quietneſs, and this upon a ful ſtomach, the body being likewiſe ful and wanting Evacuation; Anger, and other the paſſions of the mind, &c.

There is *ſome hopes* of a CURE if the Spitle being of a mingled red and yellowiſh color give out and intimate any ſign of concoction in the Lungs affected; and if the impoſtumations be thruſt forth either unto the Ears, or unto the inferior ſeats of the *Thorax*; and ſo they either paſs and turn into a fiſtula (and ſo may be evacuated) or elſe they are derived unto the Thighs. It is ſomthing *doubtful*, if there be want of ſpittle, by reaſon of the contumacy or unpliablneſs of the matter, and the imbicility of the natural powers; if there iſſue forth and appear with much and thick urine, thoſe ſweats that at firſt did ariſe about the neck and the head; becauſe thoſe aforeſaid ſweats are thought to proceed from a forcible conſtraint, ſuffocation, and violence. As for al other things in the cure, it foloweth the method of other inflamations. If it ſucceed *any otherdiſeaſe*, and the blood be already evacuated, then Cupping-Glaſſes with ſcarification ought to be applyed unto the Arms and the *Thorax* or Cheſt: let the Expectorations be of the ſtronger ſort, and ſo likewiſe the Topical Remedyes.

The *difference* is taken from the ſubject and the cauſes.

I. One is of the whole lungs, which if together with the heart it be inflamed, ſo that it proceed & exceed it ſelf unto the ſide, it then produceth in the ſick perſon a reſolution or palſie. For the blood flowing abundantly into the great Artery, ſo that the intercoſtal Arteries are thereby filled; and ſo that alſo thoſe little branches that penetrate throw the holes of the vertebra, of the *Thorax* into the ſpinal marrow, do ſwel, the Nerves there paſſing forth from the ſpinal are compreſſed, and being thus preſſed together they cauſe a reſolution, and Palſy.

Another there is *of the one ſide or other* of the Lungs, and not in the whole, and then there is a pain and heavineſs felt ſenſibly and perceived in the one or the other part thereof; if the upper wing be diſaffected and ſuffer, then the Affect extendeth it ſelf even to the Channel bones of the throat; but if the lower, then

then it reacheth unto the diaphragm. The vein on that ſide wherein the inflamation is, ought to be opened.

II. One is from *pure blood*, from whence there ariſeth a Phlegmone. It *is known* by this, that there is produced a bloody ſpittle, unleſs haply the diſeaſe be extremely Crude; a ſtreightneſs of the præcordia and of the whol Breaſt oppreſſeth the party; an extraordinary great & intence heavineſs contracteth the ſtern (to wit, that part of the Breaſt where the ribbs meet) and the Back; the Patient is not much afflicted with any acute Fever. But now that blood, *ſometimes* in the *Angina* or quinſy, breaketh forth violently out of the Jaws; and then they die within ſeven daies; if they eſcape theſe, then they become purulent. And becauſe that in thoſe that are in the midſt betwixt old age and the vigorous flouriſhing eſtate of thoſe of ful and perfect growth, the expulſive faculty, is more Languid and weak than in yonger perſons, they are therefore not to be cured but with much difficultty. *Sometimes* it is derived thither from the Pleuriſy, and yet not by the veſſells, becauſe that there is no convayence for them; but by the membrane that inveſteth al the parts of the Thorax; and then in this caſe likewiſe, in regard there is a tranſlation of the matter from the outward parts unto the inward, that is to ſay, from the leſs noble unto the more noble parts, and ſuch as are nigher unto the Heart, the Malady is therefore the more dangerous.

Another from *Chollerick* blood; from whence it is that the Quinſey is frequently turned into the Peripneumonia; and the Luugs being of a ſpungy ſubſtance doth eaſily admit of a Cholerick and the thinner ſort of matter, and drinketh it in more deep than other. *It is known* by this, that the cough rayſeth a yellow ſpittle and that that is not mingled with much blood; the ſtreightneſs of the Cheſt, and the ſence of weight and the veins is leſs than in the former differences; and laſtly, *it is known* by this, that the patient in his fever is even ſcorched with a more ehement and intence burning heat.

Chap. 3. *Of the ſtreightneſs or narrowneſs of the Lungs.*

The ſtreightneſs of the Lunges *is the interception of the veſſels thereof by reaſon of obſtruction, Compreſſion, or exſiccation, producing a Cough, oppreſſion, and a difficulty of breathing.*

As for the *Signs*, *Cauſes*, and Cure thereof, let them be al ſought out from the differences.

The differences are taken from the Cauſes and the parts affected.

I. One is of the *rough Arteries*, (touching which let the Reader adviſe himſelf further, and ſatisfy himſelf fully from the following differences) the which proceedeth from an obſtruction &c.

Another is of the *ſmooth Arteries*, *which is known* from the breathing, which is with much difficulty: yet not only in the beginning, but likewiſe in the increaſe thereof; from the pulſe, being altogether various, unequal, intermitting, great, ſwift, ſlow, rare, frequent, vehement, by reaſon of the Combate betwixt nature and the Morbifique cauſe, ſhe being not able to expell the fuliginous or ſooty fumes, by reaſon of the ſtreightneſs and narrowneſs of the Arteries; from the palpitation or beathing of the heart (it being now very much oppreſſed) and from faintiug and ſwooning. It ariſeth either from *thick Viſced* or clammy, and flegmatick humors; (and then the pulſe is by the extenſion) it differeth much from it ſelf, but yet it is for the greateſt part more equal in it ſelf; and this is not very hard to be cured, eſpecially if it newly begun; the cure remaineth to be ſpoken of below. Or elſe it ariſeth from a *little riſeing* or ſwelling, and then the pulſe is hard by extenſion and dryneſs; its inequality is uniform, by reaſon that the Cauſe is more fixed. Touching the *Cure*, we ſhal ſpeak more anon.

II. One is (underſtand this of the *Rough Arteries*) from an *obſtruction* by blood, a humor &c. Touching which more below. Another from *Compreſſion*, and almoſt from the very ſame cauſes, as in the dropſy. Another from *Exſiccation*, very frequent and incident unto ſuch as work in Metalls; and this for its cure requireth almond milk.

III. One is from *blood* obſtructing or compreſſing the rough Arteries expelled and driven forth thither either from the Lungs, or from elſe where, which is to be driven back and evacuated. And laſtly, if it become Clotted, by *Oximel ſcillitick, and a poſſet*, that is, a mixture of water and vinegar, (ſix ounces thereof in weight) ſo that it be pleaſant to drink, and likewiſe ſo that by reaſon of the vinegar it provoke not to Cough; (and this to be adminiſtred blood warm three or four times in a day) it is to be diſſolved.

Another from a *Humor*, and eſpecially that

that

that is Phlegmatick, which is *plentifull* and abounding, and then (if by distilling it flow forth only into the Membrane that surroundeth and grindeth in the throat) it obscureth the voice, and causeth a hoarsness: if this humor fal into the hollow, & the channel of the throat it produceth a little sheeps-cough (as we cal it) with a certain sence and feeling of an acrimony that continually provoketh to Coughing, or else the sayd humor is *thick and viscid* or clamy; but this is very rarely generated in the Lungs in regard that they are nourished by a thin and pure blood; it almost alwaies ariseth from Catarrhs falling down from the head; the which in tract of time by the force of the heat is changed into a Glassy, or Plasterlike Phlegm which being by the many distillations returning in a round (as it were) and circuit stored up in great abundance, causeth the *Asthma*. The same likewise exceedingly afflicteth the Patient with a kind of dry Cough, by the which there is hardly any thing expelled and brought away; it rendereth the breathing difficult; and causeth in the taking in and puting forth of the breath a snorting or wheezing, as we term it, in regard that it is impacted, and pertinaciously stuffed into the Lappets of the Lungs; it hath signs and tokens foregoing of a distillation either from the head, brain, or from the neighboring parts. In the *Cure*, whilest the matter is in preparing, with *Colts foot*, *Horehound*, and other attenuateing and cutting Medicaments, let *Borrage*, *Liquorish*, and *Raysons* be mingled together. The purgation is wel performed with *Agrick*.

Another is from the *Pus*, or purulent Matter that is powred forth out of some Apostume; and then expectorating Remedies have their place.

IV. One is from *Causes that in their whol kind are preternatural*: amongst which are, I. *Little Substance*, some of them very hard and solid, others of the consistence of old Cheese; all of them included in their own proper Cisterns and Bladders, and producing the *Asthma*. II. *Little Risings* or Swellings, which *have their Original* from a matter collected in one part, and thence structing and standing forth, without any token or sign at al of any distillation preceding, and these said swellings adhere and stick close unto the *Aspera Arteria*, or great rough Artery. They are *divided* into those that are *Crude* or raw, (which are very hardly known, and they are never suppurated, neither have they any Feaver joyned with them) and such as are *Suppurated*, in the which the *Pus* or filthy corrupt matter is so strictly and closely shut up in its little Membrane, and proper bladder, that hardly can there any noysom and stinking smell expire and breath forth of it into the Body. Then the sick persons are of a black & blew, or leaden color, their Tongue is replenished with a certain kind of Clamminess, especially when they have abstained long from Food: the Urine is dyed, and hath a cincture, either from the vehement motion and stirring of the Body, or else from meat and drink that is hotter than ordinary; after an extream and violent motion, there are little pils, and smal round bals or pellets (like unto a smal Pease) included and wrapped up in a little Membrane, ejected and cast forth of the Lungs. There is then likewise a troublesom Cough, and a difficulty of breathing excited. A pain there is that continually affecteth sick persons, but then chiefly when they are moved with a more vehement and violent motion. The Patient *recovereth not to be well* of these, unless, 1. The Suppuration be speedily wrought. 2. Unless the Suppuration when it is made suddenly break forth. 3. Unless it tend upwards, and be cast forth by Coughing. 4. Unless al the *Pus*, and the whol filth be evacuated and emptied forth. 5. Unless the belly (that is, that Cavity in which the *Pus* or purulent matter was contained) be perfectly agglutinated and united as formerly.

Chap. 4. *Of the Wounds of the Lungs.*

THe *Wounds* of the *lungs* are wel *known* by the difficulty of breathing, by reason of the hurt the organs have received; by the casting out of froath and blood by the mouth with a cough; by the spitting up of a red and froathy blood out of the chest without any pain at al; by the swelling and strutting of the neck veins; and lastly by the various color of the face one while red, and as soon again pale and wane.

Now these wounds are *Caused* in a twofold manner. For *Somtimes* it so chanseth that *the fleshy substance of the lungs may be hurt*; and then, in regard that the blood distilled in the Cavity of the *Thorax*, and that neither a spitting of blood, nor any Cough whatsoever urgeth the party, the breathing thereupon is not without much difficulty; ther appeareth a virlsitude or interchange of heat and cold, by reason of the exhalations and fumes from out

of

of the heart, *Sometimes the veins of the Lungs are affected*; and then there floweth forth in great abundance a blood ſomwhat red, black, and frothy: the Cough likewiſe is perpetual, unleſs perhaps there be preſent a proſtration and decay of the Natural ſtrength and vigour, or an oppreſſion of the Lungs from the blood.

They are Cured, I. If the profuſe flux of blood be ſtanched, and the inflamation unto which the Lungs by this means becometh obnoxious, be prevented and hindered by veneſection. II. If the blood (in him where it was poured forth into the Cavity) ſubſiſt, and abide there. III. If (when the ſayd blood cannot flow forth by reaſon of the narrowneſs of the wound) the ſaid wound be widened with a penknife. Among thoſe Medicaments that ſtanch and ſtop the blood, there are theſe, viz. The *Strawbery buſh*, *Betony*, *Scabious*, the herb *Ladies mantle*, *ſanicle*, *Comfry*, *&c.* without, theſe are altogether void of any biting quality, viz. *Bole armeniack*, *Frankincenſe*, *&c.* [Read more of this ſubject in the guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations, and the London diſpenſatory: al the laſt Editions engliſhed by me]

Chap. 5. *Of the Ulcer of the Lungs, or Phthiſis.*

PHthiſis is an Exulceration of the Lungs, from a ſharp corroding matter, with a gentle Fever, a Cough, and a ſpittle that is both bloody and purulent; by the which the whol body is ſenſibly, and by little and little conſumed and extenuated.

The *Subject* of this exulceration is the Lungs together with the parts thereof, to wit, the fleſhy ſubſtance, the lappets, the veſſells, and the Membranes; *in thoſe* eſpecially, that have their heads eaſily and ſoon filled, and where the head ſendeth many diſtillations unto the organs of breathing; *in thoſe*, that from their very nativity have their Lungs of a vicious ſubſtance, that is, ſuch as is tender, ſoft, and eaſily waſted, as being moſt ſubject to corruption. And hence it is that ſuch as are deſcended of a tabid ſtock (that is to ſay, thoſe that iſſue from parents affected as beforeſayd) do all of them at the length (as it were by a right of inheritance) neceſſarily waſt away and conſume in the aforeſaid manner: *in thoſe*, that natura lly have a ſtreightneſs and narrowneſs of the Cheſt, and likwiſe a depreſſion of the ſame, a ſtreight neck or narrow throat, a lean and ſpare body, and their ſhoulder blades ſticking out behind them like as if they were wings.

The *Signs* are, a *Gentle* and moderate Fever proceeding from vapors elevated and ariſing out of the Lungs, and aſſaulting the heart by their ſudden and violent irruption therunto with which there are alſo joyned other feavers that are otherwiſe ſometimes Erratick and fleeting, and ſometimes again invading the patient after the maner of a Tertian, whileſt that the humors within the veins by that heat as were kindled and ſet on fire corrupt and putrefy; and this (the truth is) being by its continuance and without any the leaſt intermiſſion, turned into the Hectick, immediately after meales, and in the night time, (like as do others) increaſeth and groweth more prevalent. 2. *A frequent Cough* (like unto that of foxes) without any great pain, which cheifly afflicteth and troubleth the party in the night time; and it hath its exiſtence from a matter that is ſharp, by reaſon of the irritation of the Lungs. 3. *A bloody and purulent ſpittle*: but this is not in al. Some there have been found, who after their retching, and the ſpitting up of a liquid and yellow humor, (being ſoon after ſeazed upon by a light and gentle fever have thereupon begun to fal away and waſt; and after ſome time, have caſt forth by retching a certain ſmal quantity of blood, together with a kind of *Pus* or corrupt matter: and many have been by ſenſible degrees taken away in whom (throughout the whol courſe of their lives) there appeared nothing at al of this bloody and purulent ſpittle. But I muſt tel you, that this *Phthiſis* is incident unto thoſe that are young, rather than unto aged perſons, in regard that young perſons moſt commonly abound with blood, and conſequently are affected with the heat and acrimony thereof, with the laxity or looſneſs of the veſſels, and likewiſe the hardneſs of the ſame, and in regard likewiſe that theſe excerciſe themſelves in a more violent manner, and have little regard to their diet. This hath one thing ſingular as propperly and peculiarly belonging thereunto, to wit, that it proceed from the very ſubſtance of the Lungs, it is then frothy, and if it be put into the fire it ſtinketh, and is very offenſive to the ſcent. 4. The *extenuation* of the *body*, which is from the aforeſaid continual, but gentle fever, the which by its fiery heat (diſperſed throughout the whol body diſſolving the Arterial blood, the mingling where-

of

of together with that of the Veins is altogether neceſſary unto Nutrition) hindereth the Concoction of the Aliment in the whole body, and by its preternatural heat waſteth and conſumeth that which is Concocted and ſtored up.

The CAUSE is a ſharp corroding matter, fallen down thither; of which we ſhall ſpeak further in the differences.

The CURE *is not to be deſpaired of*, no, not though it be attended with an Ulcer already appearing. For *Galen* ſendeth ſuch to *Tabæ* a City in *Cilicia*, and preſcribeth milk for their Diet. Yet notwithſtanding it is ſomething *Difficult*, *as wel* in regard that the filth and purulent matter ſticking in that ſoft and Spungy fleſh, cannot without a Cough be purged forth; by which the Lungs are from day to day more hurt and prejudiced; *as becauſe* that in this dayly motion of reſpiration or breathing, (unto which there is moreover added and adjoyned a violent cough) there cannot poſſibly be any Conſolidation made; *and alſo* (in the third place) *becauſe* that Medicaments in their ful ſtrength and Virtue cannot penetrate ſo far; and laſtly, becauſe that Feavers require moiſtening Remedies, which are altogether hurtful to an Ulcer. The Cure *hath cheifly reſpect* unto theſe ſix things in Particular. I. The removal and *taking away of the Catarrhe*, touching which more below in the Difference. II. The *Cure* of the *ulcer*; & here there is commended *Flores Sulphuris* (or the flower of Brimſtone, as we commonly cal it) with a ſoft and rere egg, ſyrup *de Eryſimo*, or water Creſſes, of *Lobelius*, of the Juyce of *Ground Ivy*, with the Flower of Brimſtone, of *Marſh-Mallows* of *Fernelius*; of the Juyce of *Mouſe Ear*, *Milfoil*, and Citron Rinds *Prepared*; the Decoction of *Pimpernel*, *Walwort*, *Sugar of Roſes* Old, with the Whey of Goats Milk; the *Secret* of *Freytagius*, (of which you may ſee further in the ſame Author, in his tract of *Opium*) China Root, Guajacum, &c. Let the Patient every hour lick in the *Loboch* of *Walwort*, with the Conſerve of Red Roſes. III. The *Correction* of the Blood, that ſo that that floweth unto the part affected may be good. And therefore in the Diet, *Milk* is accounted wholſom, becauſe that by its ſeroſity it cleanſeth the Ulcer, and by its Caſeoſity (if we may ſo term it) or Cheeſie part it Conſolidates: and then (laſtly) by its Aereal and buttery Fatneſs it Humectates and moiſteneth the waſted and extenuated Body. And certain it is that Goats Milk ought to be taken at dinner time (at leaſt, if there be preſent no great Feaver, or pain of the head) that ſo it may not ſour in the ſtomach or Cauſe unſavory belchings. At Supper, the *Emulſion* of white Poppy Seed, and of the greater cold Seeds, of each one dram, of the Milk of ſweet Almonds one pint, alſo milk Boyled with Rice. If Milk be not thought convenient, *Barley Hulled*, and with the broth of a Cock reduced into a Cream. Diſtilled Medicaments are not here approved of, becauſe that their Nutritive faculty doth not tranſcend the Alembick. IV. The *Removal of the Feaver* by thoſe things that cool and moiſten. V. The *Depulſion of the Extenuation* by thoſe things that have in them a power reſtorative; And here *Pultiſes* of Milk, the Yolks of Eggs, freſh Butter, Sugar, and the meal or flour of Barley and Rice, have their place. Then let a *Bath* of warm Milk be made for the ſick perſon; after which let a Roſted pullet that hath been fattened with Milk ſucceed; and then the diſtilled liquor of *Snails*, and the *Aqua Mirabilis*, of which we may ſee more in *Zacutus* his Eight Book. VI. The *Nerſion of the whole Nocturnal Colliquation by* Sudorificks *or Sweats*. Then in the evening we muſt adminiſter the Conſerve of Red *Roſes*, with the Syrup of Poppy, of Jujubes, and *Diacodium*. The Breaſt and the Back-bone are to be anoynted, and a Liniment Reſumptive (as Practitioners cal it) with the Oyl of Roſes and Violets, &c. The Phthiſis *is divided* in a twofold manner, according to the quality and condition of the Cauſes, and its Duration.

I. One is from *Blood*, which being got forth into the Lungs, there clotteth and putrefieth. And in this (if al things elſe be anſwerable) Phlebotomy hath its due place, in the very beginning thereof.

Another from a *ſharp Humor*, whether it be Serous or Cholerick, which is either ſent from the Head, (neither may it be caſt forth by Coughing; and then the Cure is to be ordered according to the Nature of the Catarrh) or elſe it is poured forth from the *Heart* into the Lungs; or elſe it regurgitates from the ſuppreſſed *Courſes* or *Hemorrhoids*; and then the Cure muſt be ſought for in its own proper place.

Another, but that is very rare, from *Sweet Flegm*,

Flegm, if in too great abundance it flow unto the lungs, obstruct the lappits therof, render the substance thereof over moist, and there putrefie, by reason of its long abode there, and for want of Ventilation.

Another from *Pus* or corrupt stinking matter, upon the breaking of the impostum of the Quinsie, of the Uvula, the Pleurisie, &c. And hence is that of *Hippocrates*, those (saith he) that after a Pleurisie happen to be impostumated, if in forty daies they be not freed thereof they then become Phtysical.

Another by *Contagion* from the breath of the Phthisical; and hereunto belongeth that of the Sea hare, corroding and eating through the Lungs by its specifical Poysonous quality; and likewise the breath and stench of Cats and Dogs, sent forth especially in the dissecting and opening of them.

II. One is *Recent*, and but newly begun; in which the Symptoms are not so strong and Violent.

Another such as is confirmed, and of a long continuance, in which the Cheeks wax black or of a Leaden color, with a Paleness in the Face, although (I grant) at somtimes the Cheeks, by Reason of Vapors ascending from the Lungs, may appear to be of somthing a red color. The *Breath*, (by reason of the imbecillity of the breathing Faculty, or the obstruction of the *Bronchia*, (we cal them the Lappets of the Lungs) either from store of purulent matter lent thither, or else from the many Excrements that in the weakned Lungs are gathered together and heaped up) becometh very difficult, and is hardly drawn. The *Pulses* are one while languid and slow, another while quick and swift; one while hard, by Reason of the dryness of the Body; and another while soft, in regard of the Humid matter moystening the Arteries. *Sweats* in great abundance break forth in the time of sleep by reason of the debillity of the natural Faculty. And at length the Malady having now gotten the upper hand, certain smal parcels and portions of the putrefied lungs are cast forth, with an intolerable strength. The *Hair* of the Head sheddeth and falleth off, by Reason of the defect and want of Aliment, and the Corruption of that that is bred in the Body. The *Nails* become Crooked, that Flesh that was wont to be at the Fingers ends being consumed. A *Smal sort of Lice* are generated, in regard of the Corruption of the Aliment. The *Extream* parts, especially the Feet, by reason of the extinction of the Native heat, are much swollen. And at length the Flux *Diarrhœa* (together with a suppession of the Spittle) followeth upon it, from the weakness of the retentive Faculty of the Stomack and the Intestines. See further in *Freytagius*, touching the *Phthisis*.

Title, V. *Of the Diseases of the Thorax or Breast.*

Chap. 1. *Of the Inflamation of the Mediastine, or the Transverse Muscle, and the Tumors of the Diaphragm.*

THe Diseases of the Thorax or Chest, are, the *Inflamation* of the *Mediastine*, the *Swlling* of the *Diaphragme*, the *Pleurisie*, the *Empyema* or Constipation, the *Consumption* or wasting of the *Back*, and the *Worms* of the *Back*.

I. The Inflamation of the *Mediastin*, (that disjoyneth the Lobes of the Lungs) *is known* by the continual Feaver, the frequent thick and swift breathing, an extream and intense burning in the Breast, a smal pain at the stern, unto which the Mediastine is tyed, and by the spitting and casting forth of that that is at first red, and then afterward Yellow. But the matter that is thus cast up (because that it is gathered together betwixt a double Membrane, as it were, and is not easily Evacuated, unless the said Membrane be eaten through) is not in any great abundance. *It ariseth* from the Blood, and chiefly the Cholerick. It *is Cured* after the manner of other Inflamations. Where take notice, that the Repressing Medicaments ought indeed, to be cold, but no way astringent; and that in this Case the *Oyl* of *Violets* is cheifly approved of; which must be made blood warm (unless it be in the summer time) and the Breast therewith anoynted.

II. The *Tumors* or swellings of the *Diaphragm* are of two sorts.

Some of them are *Cold*, which *are known* by the difficulty of Breathing, the stretching out of the hypochondria, & yet no swelling appearing in them upon the touch, and no deliry or dotage

accompanying it. *They arise* from a matter that is crude and thin, penetratting into the thickness of the diaphragme, either from the compression or wounding thereof. *They are hardly Cured*, if they be of long standing, in regard they bring the sick person to a consumption: but *more easily*, if they be Recent and newly begun: but not at al, if there follow a deliry or doting. *First* then we are to administer those medicaments that evacuate the prepared matter among which those we term *Hydragoga* or water purgers, are especially commended) and *afterward* with those things that mollify and digest; and cheifly *Sarsaparilla*, unless the humor hath begun to be hardened.

Others are hot, which *are known* (in their *first rising*) by a feaver that is both continual and accute, a pain, the breathing little, but often, the extension of the *Præcordia*, a palpitation or panting neer unto the diaphragm, and somtimes a kind of leaping in that place: (in the *Progress*) by the doting that attendeth it, the unequal Respiration or breathing, being sometimes smal and sometimes great; swift, and as soon again altogether as slow and rare. *They arise*, from a blood hot and cholerick. The *Cure is difficult*, in regard of the extream peril therein. It likewise resembleth the inflamation of the Lungs.

Chap: 2. *Of the Pluresy.*

THe Pleurisie is an inflamation of the Pleura Membrane, and the adjacent muscles, arising from the influx (or flowing) of a hot humor, with apricking pain of the side, a Cough difficult breathing, a continual acute Feaver, a hard pulse, unequal, and frequent.

The SIGNS *Pathognomick* (as we cal them) are, an extream *pricking pain*, because the aforesaid membran (which we cal pleura) being of a most exquisite sence, is extended by a sharp matter. A *Puls that is hard*, unequal, and bearing a kind of resemblance with a Saw, in regard that the part that is inflamed is Nervous. A *Cough*, by reason of irritation and transudation, (to use the terms of practitinors) which in the beginning is dry, but in the progress adjoined with and attended by a spittle that is bloody and purulent. A *Breathing* frequent and but very weak and smal, in regard that the muscles (by reason of the extream pricking pain) cannot be sufficiently dilated. An *acut feaver*, in regard that the inflamation is so neerly neighboring unto the Heart. And al these signs ought to conspire and meet al together, and not to be present in a scattering manner, one after another.

The CAUSE is an extream hot matter; or blood, either pure, or impure which floweth forth especially out of the *vena cava* (or great hollow vein adjoyning to the heart by the Branch that is termed *Azugos*, into the little thin stems and sprigs thereof; which being opened, broken or the pors therof dilated, it runneth violently into the plura membran; and somtimes it likewise rusheth thereunto through the upper intercostal membran; but more rarely, through, the thoracical, and that we term *mamaria*. The Supply of the aforesaid blood is from a Plethory, Cacochymy, and the overgreat heat of the Sanguifying bowels. It is promoted and furthered by various external Causes, and cheifly a sudden chilling, and cooling, cold northern blast after the great and warm south wind, over much and violent exercise, &c.

There is *good hope of a* CURE; if the spittle receive a mature and speedy concoction, and be easily and fitly cast forth; and if on the foruth day the sick person spit forth that that is white, light, equal, and this by coughing three or four times be terminated on the seventh day, and if on the seventh, that then it be not extended beyond the leventh or foreteenth day at the furthest; if on the crittical day there happen a flux of blood out of the nostrils, the Hemorrhoids, or the womb, with signs of Concoction; if (which is indeed very rare) there chance a *Metastasis* or translation of the matter unto the joynts and the members of less account. It is *doubtful*, if there be spit forth only thin *Ichores*, (which are a sort of little ulcers) if yellow choller very much mingled with spittle, appear long after the beginning, in regard that hereby is signified that nature attempteth nothing against the disease. If the Spittle be yellow, sincere, and mingled with much watterishness; if the said spittle be Glutinous and Clammy, because this clammy quality is contracted from a burning and scorching heat; if it be ful of a green rustiness and very frothy; if it be black, because hereby is signified the pravity of the humor; and the extinction of the native heat; if striving much by reaching doth not stay the Cough, and facilitate the Breathing, because hereby is manifested either the Malignity of the matter; or the

the weakneſs of the expulſive faculty; if after fourteen dayes it turne into the *Empyema*; if it degenerate into the *Peripneumonia* or inflamation of the Lungs; if it befal aged perſons, becauſe that through the want of heat the matter is not concocted; if it happen to thoſe that have thick bodies, and that are accuſtomed to excerciſe, al things elſe being thereunto anſwerable. *No hopes at al*, if in it there be nothing ſpit forth; if the pulſe be hard, little and by reaſon of heat very thick, and moſt frequent; if there happen (in the begining thereof) a flux of blood, without any alleviation or eaſe, in regard that in this caſe the patient moſt uſually dyeth on the fourth day; if the pleureſy be ſo great, that the liver and the ſtomach be likewiſe drawn into a conſent and fellow ſuffering, and that alſo the flux *diarhœa* follow upon it; if the pleureſie invade a Cachectical Body, after ſome other long continued diſeaſe; if from the ſpittle there ariſe a noiſe and much ratteling in the breaſt, and that the continuance be dejected; and the eyes veyled and blind with miſts and darkneſs, or, (as many times it is) with the yellow Jaundis. The Cure (when we ſet upon it) *hath reſpect*. I. Unto the *humors* already *flown* in, and likwiſe to thoſe that are like to ſucceed and follow, which are to be drawn back. II. Thoſe that are at *preſent flowing*, which are not to be intercepted, neither driven back, but derived. III. Thoſe that are *impacted* and ſtuffed up in the part affected, which are to be diſperſed and ſcattered, or removed by any manner of means. IV. The *Pain*, which is to be mitigated. V. The *Feaver*, which is to be kept under and moderated. VI. And laſtly, the natural vigour and *powers* of the Body, which are to be Corroborated. Touching al theſe, let what followeth be wel obſerved. 1. That *Veneſection* is with al ſpeed to be adminiſtred, on the oppoſite ſide, for repulſion, if the body be Plethorical; if it be not directly on the ſide affected. 2. That if the courſes or the *Hemorrhoids* be ſuddenly ſuppreſſed, then the evacuation is in the firſt place to be out of the ancle vein, or that of the Ham; but if the ſuppreſſion hath been of long continuance, out of the arm vein. 3. That in derivation, the blood is to be drawn forth ſo long, as until the color of it be changed. 4. That fomentations may be adminiſtred (to moderate the *pain*) in a body that is not Plethorical, yea even before Phleborotomy; but not ſo when the Body of the patient is Plethorical. And for this end and purpoſe excellent good is the Unguent made of dialthea, or of *Marſhmallows*, one ounce thereof, and half an ounce of the oyl of ſweet Almonds, with the pained parts ought to be al over anointed, and upon it the fine ſmall pouder of *Camomile flowers* is to be lightly ſtrewed, and then the leaf of a Colwort or Cabbage anoynted with Butter or hogs fat is to be laid upon it very hot (and this is to be continually done dureing the whol time of the cure) adding likewiſe a little of the diſtilled oyl of dil Champhyre. 5. That forthwith in the very firſt beginning a ſweat may very fitly and properly be rayſed and excited, by exhibiting, either of the water of the *Poppy Roſes*, three ounces thereof, with one dram of the pouder *of Corral*, red Filberds, the Jaws of the Luce-fiſh or Pike; or elſe of the *ſimple Mixture*, one dram, with the water of *Carduus Mariæ*, or of the *Spirit* of *Nitre*, with the *ſpirit* of *Wine*, of *each one ſcruple*, the *ſpirit* of *Tarttar* half a ſcruple, in the water of Poppy *Roſes*, or elſe the ſimple water thereof, &c. 6. That pectoral *decoctions* (together with their appropriates) are continually to be adminiſtred, (after the premizing of univerſals) that ſo the ſpitting may be facillitated. 7. That theſe following have in them a *Specifical* propriety of operation, to wit, the flower of the *wild poppy*, of the *dry dock*, and of the white *Eglentine or ſweet Brier*, the ſeed of *Carduus Muriæ*, the Bulls pizzle, or the pizzle of the Hart or Stagg, the ſhavings of the Boars tooth &c. (ſee *Petræus*) Al which are to be made into a very fine pouder, and then to be put upon bread that hath been wel dipt in *Scabious* water. 8. That the *impoſtume* may beſt be broken with a Cataplaſm of the *herb kaly*, the roots of the *White lily* while they are new and freſh &c. applied unto the ſide that is payned. 9. That after al thoſe aforeſaid, *Chalybeated milk* (unleſs a Feaver hinder it) is the beſt.

As touching the differences.

I. One is (as we may term it) *Legitimate* and exquiſite, (unto the which only whatever was ſayd before, as to this poynt, is to be referred, and underſtood thereof) which. I. *ariſeth* either from *blood* that is pure; (in which there is a bloody ſpittle, an extenſion of the veins about the Temples and the forehead, with a ſence of heavineſs neer about the hollow of the Eyes, & the fore parts of the head) or elſe from a *blood* that is *Cholerick*; (in which the ſpittle is yellow; and which if it ſuddenly vaniſh without any apparent cauſe, the ſick perſon is immediately ſurpriſed with dotage; It is beſt and ſooneſt of al cured by opening the ſalvatel-

la vein) or thirdly from a *Phlegmatick* blood, (in which the ſpittle is frothy, more ſlow, and as it were ſweet, the ſyrup of *Zacutus* in the Eight Book, Chap. 3. of his Hiſtory, is very efficacious in this kind) or elſe, laſtly, from a *Melancholy* blood, which very rarely happeneth by way of afflux. II. It affecteth either the *interior tunicle* (and then the ſick perſon doth with the more eaſe lie and reſt upon the grieved ſide; in regard that now the tumor is not immediately under it, neither doth it in this caſe diſtend the grieved part) or elſe the *Exterior*, about the bones, (and then the caſe is quite contrary unto the former) or otherwiſe *both of them*, and then the patient lying upon the back is the freer from pain. III. It affecteth either the *right* or the *left ſide*; or the *ſuperior part* extending it ſelf to the throat, or elſe the *inferior* reaching even unto the *Hypochondria*.

II. Another is *baſtard*, and ſpurious, which is diſtinguiſhed according to the quality of the matter, and the manner of its ſituation. One is from *Windineſs* (in which the pain is not fixed, but runneth from place to place; it is mitigated, and oftentimes wholly diſpelled by fomentations; there went before cauſes generating windineſs; the pouder of Cummin ſprinkled and ſtrewed upon a Cabbage leafe anointed or ſpread over with butter, and outwardly applied unto the pained part, is very ſucceſsful in giving eaſe:) Another from *a diſtilation*, which hath with it a ſence and feeling of a defluxion, or ſomething at certain times falling down; it is exaſperated by being touched, neither doth it any whit yield unto fomentations; the cure is to proceed according to that of a thin catarrh. Another is *externally* when the blood thorow the branches (from the *Axillaris ramus*) is emptied forth into the External Muſcles of the Thorax; and then the pain waxeth very intolerable upon the preſſure thereof; lying down upon the grieved ſide is extreamly troubleſome; there is in this caſe nothing caſt forth by ſpitting, and the tranſition or paſſing over of it into that which above we termed *Vera*, or the true and exquiſite Pluriſy, is very facile and eaſy.

Chap. 3. *Of* Empyema.

EMpyema is the Conſtipation of the Cavity of the Thorax or Breaſt from an abundant purulent matter, cauſing and producing a difficulty of breathing with a Cough and a purulent or rotten ſpitting.

The *Subject is* the Cavity and capacity of the Thorax being that void ſpace betwixt the Thorax and the Lungs; albeit the Lungs themſelves and the veſſells thereof may not here be altogether excluded. But now indeed, becauſe that the Lungs by the Mediaſtine is divided into two parts, the *Pus* is collected either in the one or the other part, or elſe in both of them together.

The *Signs* are a difficulty of breathing with a ſpitting, and a perpetual purulent Coughing; a ſenſe and feeling of a heavy and dul pain in the bottom of the Thorax and eſpecially neer about the diaphragm; a redneſs of the Cheeks, and that chiefly about three or four hours after meals &c.

The *Cauſe* is that very purulent filth it ſelf filling up the Thorax; the abundance whereof together with its ſtinking ſmell, and acrimony, inflicteth very ſad and grievous pain and miſchief.

There is *ſome hope of a cure*, if upon the opening or burning, there flow forth a white *Pus* or corruption; if it be rather on the right ſide than the left, and that the Patient be ſtrong and able; *No hopes*, if the whole Thorax be lifted up in the breathing, if the whol cavity be poſſeſſed; if the left ſide; if upon the lancing or burning of it, that which iſſueth forth be ſomwhat bloody, and il favored; if upon the ſame occaſion *Pus* or filth, or elſe a water flow forth generally and in a great quantity; if in them the ſearching inſtrument or probe be colored by the *Pus* and filth like as by the fire. *It reſpecteth*, I. *The Concoction* of the *ſuppuration*. II. The *breaking of* the *Impoſtume*, which is effected by the eating of ſalt meats, by frequent retchings and ſpittings &c. III. The *Evacuation* of the *Pus* or matter; where we are to have eye upon natures motion and which way ſhe tendeth, to wit, whether upwards, or downwards unto the inteſtines, or the bladder. The ſpittle may be notably procured by the oyl of *Sulphur* and the *ſpirit* of *Turpentine*, pectoral decoctions being therewith wel mingled. There is likewiſe much commended the juice of *ground ivy*, of *Hore hound*, made up into a lohock with *Myrrh*, *Frankincenſe*, *diapenid*: Touching the *decoction of Ebony*, and the *ſyrup of ſhel Crabs*, ſee more in *Zacutus* his 8. Book, Chap. xi. If theſe prevayl nothing, we ought then to proceed unto *Section* or lancing, and alſo to *burning*; touching which conſult thoſe Authors that have written upon this ſubject.

As

As concerning the *differences*; one is from a *rupture* of ſome proceeding *Apoſtem*, as of the quinſey, the Pluriſy, the peripneumony, whenas they are terminated by ſuppuration.

Another, when out of a vein *opened*, broken, or *gnawen aſunder*, a portion of the blood iſſuing forth into ſome particle of the Lungs is converted into *Pus* or corrupt filth, & in the top thereof formeth and frameth for it ſelf a bladder; of which we have ſpoken ſufficiently above, in its proper place.

Another from *a diſtilation fallen down from the Head unto the* Breaſt, and in fourteen dayes time not purged from thence by ſpitting.

Chap. IV. *Of the Conſumption or waſting, and the Worms of the Back.*

THe *Conſumption* of *Back* is, when the Back withereth, pineth and waſteth away. There are four *ſpecies* or kinds thereof. I. From *Exceſſive venery*, and immoderate uſe of women; and then it ſeemeth to the party, as if Emmets from the ſuperior parts, and out of the head fel into the *Spina* or Backbone; the ſeed paſſeth forth both by day and by night; there is no fever there at the firſt, but within a very ſhort time there is a fever attending it. II. When the natural inbred heat of the *Spinal Marrow* is in a manner overwhelmed by an *abundant ſtore of blood*, and thereby wel nigh extinguiſhed. III. When it is overmuch *dried*, thoſe *paſſages* being altogether ſhut up throw which the Nutriment is carried and conveyed unto the ſame. IV. When there is a depraved baneful diſtillation continually incumbent and lying thereon. For this ſee *Salius Diverſus*, and others.

II. The *Worms* of the Back (called *Crinonis*) moſt commonly infeſt and trouble Children and infants. *They are knowen by this.* That theſe infants eate indeed, but are never a whit nouriſhed thereby; yea they wear and waſt away, becauſe that in regard of that moſt troubleſom perpetual itching that followeth them, and there being now and then lanced, they can never be quiet, but are alwaies reſtleſs; and by this likewiſe theſe may be knowen to have worms, when being brought into the Bath, and there forcibly rubbed, there bud forth out of the Skin certain ſmall hayres reſembling aſhes, or elſe of a blackiſh color. *They ariſe* from a viſcous and Clammy matter ſhut up under the skin, in the Capillary veins. *They are taken away* if the infants be anointed on their backs with a Liniment formed of whearen flower and hony, and the little heads that theſe ſmal worms in a ſhort time thruſt forth, be cut off with a Razor, &c.

Title, VI. *Of the Symptoms of the Lungs, and the Thorax, or* Breaſt.

Chap. 1. *Of the vices*, or things amiſs, *in the Breathing.*

The Symptoms of the Lunges, and the Thorax, are, the *fault in breathing*, the *Aſthma*, the *Cough*, and the Hemoptyſis or ſpitting of blood.

Unto the *faults* of *Reſpiration* or Breathing *there belong.*

I. *Macropnœa* or a *great* Reſpiration exceedingly diſtending the Breaſt and drawing unto it abundance of Air; which happeneth by the violence and ſtrength of fevers in which the heat of the heart is inflamed, ſo that thereupon there is a great want and indigency of refrigiration and drawing forth of fuliginous ſooty fumes.

II. *Tachypnœa*, or a Reſpiration greater and *more frequent*, what is agreeable to the courſe of nature, its uſe being augmented by the heat & ſooty fumes. *It ariſeth* either from the diſtemper of the heart, the Lungs, the Breaſt; or elſe from the abundance of hot vapors and exhalations, eſpecially when the faculty is weaker than that it can ſuffice for the Juſt and right dilating of the Thorax.

III. *Diſpnœa*, or the *difficulty of breathing*; ariſing from the default of the organs themſelves; which is eaſily *known*, for it manifeſteth it ſelf unto the ſence of its own accord. *It ariſeth*, 1. either from things *external*, to wit the fume of quickſilver, the ſmoke of coals, Calcarth, or vitriol, lime, anoynting with Mercury, and other ſuch like, or elſe from *internals*, that produce the ſtreightneſs and narrowneſs of the veſſels, either by obſtruction, or by compreſſion; of both which we have

have spoken before. It is wont likewise to fail by Reason of extream drineſs, (although this very rarely happen) when the Substance of the Lungs by an Ulcer is so consumed or dryed away, that it can now no longer be dilated; and this somtimes chanceth unto those that are Phthisical, before they dye. II. Another is *Essentially* such; and unto this, what hath hitherto been spoken doth properly belong. Another by the *Consent* and greement, 1. Of the *Thorax*, whose motion is hindered by the fault either of the Spirits, or of the Muscles. 2. Of the *Diaphragm*, whose motion is hindered, either becaute the Nerves inserted and implanted therein are hurt; or else because the Vapors exhaling from the inferior parts reside and settle neer about the said Diaphragm; or else lastly, because that a Waterish humor presseth it down, &c. 3. Of the *Liver*, *Spleen*, and *Stomach*, which somtimes are distended, and swoln. III. One is *Lighter* or less, in which the breathing is thicker and more frequent, yet without any noise or panting, and of this must be understood what hath been already said. Another is more sad and *Grievous*, which we cal *Asthma*; touching which more anon.

IV. *Apnœa*, or the taking away of al sensible Respiration, accompanyed with an extream great danger of Suffocation. *It ariseth*, partly from the very same Causes, peccant in the highest degree, and partly from the Contrary, to wit, Necessity deminished, or the use taken away. It happeneth somtimes after the eating of *Mushroms*, and somtimes in the most sad and grievous suffocation of the womb, and likewise in the Syncope or swooning fits. The *Cure* is to be ordered according to the Causes and the Diseases; touching which elsewhere.

Chap. 2. *Of Asthma.*

Asthma is a frequent, thick, and short Respiration or fetching of the Breath, proceeding from the pertinacious either obstruction or Compression of the Lappets of the Lungs.

The SIGNS of the *beginning* hereof, are, the heavineſs of the Breast, difficult breathing in running or going up a steep place, hoarseness, a Cough, and a windineſs in the Præcordia, &c. The Signs of one *present* are already expressed in the Definition. There is present now and then a Feaver, as also a certain ratling noise or Wheezing, in regard that somtimes the matter sticketh fast in the foldings of the Rough Artery, which when it is expelled by the breath, there is the aforesaid sound and noyse excited; and somtimes without them, in the smooth Arteries. The drawing in of the Breath is here more difficult than the exspiration or Putting it forth. For whenas in taking in the breath, neither the Lungs, by Reason of the store of matter, nor the Thorax, by Reason of the imbecillity of its motion, can easily be moved; Nature interposing, endeavoreth as it were by rest and quietness to cherish and repair the weakned and dejected powers; but in Exspiration or breathing forth the Organs and instruments of that work fal down and so give way of their own accord.

The CAUSE is the Obstruction and compression as wel of the Rough Arteries as of the Smooth; of which we have spoken above; and from what causes it proceedeth we shal declare in that which followeth.

The CURE hath respect unto the Causes; and it is somthing *Difficult*, if the sick persons be aged There is but *smal Hopes*, if the sick person be thereby rendered Gibbous, and caused to go stooping with the back bunching out; because that in these the Lungs growing, and the *Spina* not growing nor increasing, in the streightness of the Breast the heat is stifled and smothered; if it be with an acute Feaver, in regard that the Cause of the Asthma being dryed up by the Feaverish heat, is thereby rendered and made the more unfit and unable to eject and cast forth that which offendeth upon the ceasing of the Cough, the difficulty of breathing stil remaineth; if the strength be much weakened, because then they soon fal into the *Syncope* or swooning fits.

The *Diffecences* are taken, partly from Causes obstructing and compressing, and partly from the accessions, and other the like Causes.

I. One is from a *Viscid* or Clammy *Humor* stuffing up the Lappets; which may be *known* by this, that the breathing forth is Difficult, and with a sound, as it were, and a noise, together with a Wheezing Cough. It is Cured, 1. By opening the Basilick Vein, if nothing hinder. 2. By cutting and dividing the matter by those Medicaments that moderately cut and divide, and that have in them humidity, to moysten; but these ought to be often changed, lest that otherwise Nature should be too much accustomed

accuſtomed thereunto. For the purpoſe aforeſaid there is commended the Oyl of *Angelica*, the Syrup of *Nicotiana*, or Tobacco, and that Syrup of *Theodatus* in his Pantheon Hygiaſticon; the Decoction of *Foel*, of *Zedoary*, *Gum Ammoniack*, the *Flower of Brimſtone*, and Saffron; the Oyl of *Sugar* of *Grulingius*, and *Petræus* in his Noſology; the Secret of *Frytagius*, in his Aurora Medicorum; *Oxymel Scillitick* with the Syrup of Violets, &c. 3. By Evacuation, with the *Aſthmatick powder of Rulandus*. 4. By Exſiccation, with Guajacum, Saſſafras, &c. The Humor is divided into that that is *Collected* in the *Lungs*, (and the ſick perſon by degrees beginneth to breath with difficulty and much ado and this difficulty is continual) and into that which *floweth unto it* from *elſewhere*, and then it is not wholly continual; the Exacerbations thereof are manifeſt. And here all thoſe things that have in them a purging quality are to be ſhunned and avoided, becauſe they are not without danger.

II. One is *from* a ſerous and *Wheyiſh Humor*, waxing hot in the greater branches of the *Vena Cava*, and ruſhing altogether and violently through the right ventricle of the Heart into the Lungs, and preſſing down the Arterie; and this is moſt frequent. It proceedeth cheifly *from* the *Liver*; and hence it is that the Feet of the Aſthmatical perſon do ſwel by reaſon of the weakneſs of the ſaid Liver; the humors in the firſt place ruſhing unto the Lungs, by their falling to the Kidneys, excite and cauſe a difficulty & ſtoppage of the Urine, Ructures or ſour belchings, and windineſs in the *Præcordia* are accounted to be in the number, and among the ſigns thereof.

III. Another is from a *little Crude* or raw *Swelling*, that we term *Grando*, and ſmal ſtones and Gravel; touching which we have treated above, in the ſtreightneſs of the Lungs.

IV. One is *more light*, gentle, and moderate, with a ſnorting, Noiſe, and a violent Cough, the Diaphragm, and the Intercoſtal Muſcles, yea likewiſe the Muſcles of the Abdomen, affording the aſſiſtance herein. Another there is more *grievous*, (we cal it *Orthopnæa*) in the which the breathing is very little, thick, and exceeding ſwift, which is not performed but with the breaſt and Neck ſtraitly erected, the Superior Muſcles of the Breaſt and the ſhoulders likewiſe contributing their help and aſſiſtance.

V. One is *Not Periodical*, and that obſerveth not its Paroxyſms. Another is *Periodical*, when the Humor either of its own proper Nature extendeth it ſelf and ſeeketh for more ſpace and room, or otherwiſe is driven and chaſed up and down by External Cauſes, if it be there collected, or elſe at the certain and wonted time it floweth hither from ſome other place. Thoſe exacerbations are wont to be cheifly in the Winter, or in Autumn, becauſe the matter is Flegmatick; and in the *Night-time*, becauſe it is then moved according to the Motion of the Moon, and this uſually every fourth day. This may be greatly Remedied (other things not omitted or neglected) either with a Scruple of *Saffron in Malmſie*, and given hot, or with *Brumerus* his ſmal Potion, made of a dram of *Ammoniacum*, *Hyſſop water* four ounces, and *two ounces of Rheniſh Wine*. [Read more of this ſubject in the Guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations; and the *London Diſpenſatory*. Al of the laſt Editions, Engliſhed by me.]

Chap. 3. *Of the Cough.*

THe Cough is a vehement, thick, and loud Efflation or Blowing forth of great ſtore of breath (together and at once) that was firſt attracted and drawn in by the Lungs, Cauſed by the ſwift Contraction of the Lungs and the Thorax, that ſo what ever is burthenſom and Grievous unto the Organs of breathing, may be expelled and ſhaken forth.

In a Symptom ſo evident, there need no SIGNS at al.

The CAUSE is, whatever may affect the Lungs, the *Rough Artery*, and that Membrane wherewith it is encompaſſed, and as it were ſwathed about within, whether this be ſomthing External, or elſe a Humor, or a Vapor, &c.

The CURE either reſpecteth the *Cauſe*, from whence it ariſeth; or the *Cough* it ſelf, if it be vehement; which is either mitigated by Lenifiers or Anodynes or elſe is wholly taken away by thoſe Medicaments that ſtupefie and *Dul* the ſenſe and *feeling*, as for inſtance, the Syrup of Poppy, Diacodium, Treacle freſh and new, &c.

The *Differences* of the Cough are Various.

I. One is from *External Cauſes*, as a Cold Air, the Vapors of Live things Rank, and muſty

musty, as likewise such things as are Oyly and Fat; a vehement Scratching of the Ears, from whence there ariseth a very painful affect of the Nervous parts; which yet is the less violent, if it proceed not from somthing fallen into the *Trachæa* or the great rough Artery; and it is then also less dangerous. It is Cured, if the Cause be taken away; if it proceed from *Cold*, then it is Cured by the meer restraying and keeping in of the breath.

Another is from *Causes internal*, to wit. I. a *Humor*, which 1. Either is *viscous* and clammy; (and then there is nothing or very little spit forth) after Coughing, if it hath conjoyned with it a cold temper and constitution, it is then the stronger and the more violent. It is cured (Universals first premized) by those Medicaments that cut and expectorate. Among purging Remedies, *dilutum Agarici* (as Practitioners term it) with a little *oxymel Scilliticke*, is of singular use and benefit. Among those things that cut and expectorate, the *Bechicall* Aquavitæ of Joel, the *Liquor* of *Sugar* of Hartman, the *Elixir Proprietatis*, from six drops, to twelve. 2. Or else such as is *thin*; and then there is nothing spit forth, because that in the very spitting of it forth, it is so dispersed and divided by the breath, that it falleth back upon the *Lungs*; it hath for the most part a hot temperament and constitution, and likewise a Catarrh Joyned with it, and attending it. The Matter putrifying inwardly, exciteth, either a Putrid fever, or an Hectick fever, or an Ulcer. It is cured (after that General and Universal remedies have been first made use of) by those things that increassate or thicken, and lenify; such as are, the syrup of Jujubes; the syrup of Poppy *rhæas*, diarragacanth; fridgid, &c. 3. Or else it is contained *in the lunges*, (and then a due regard ought to be had unto the distemper) or else it floweth thereunto from *some other parts* as the *Brain* in a Catarrh, and here there wil evermore be present the signs of a Catarrh; the Cough, in aged persons is more vehement and of longer continuance, because that it is not maturated and ripened, and therefore the more dangerous; if it be frequent and long lasting it bringeth at length to the spitting of blood: or else from the *inferior parts*, as in the dropsy, the inflamation of the spleen, the liver, and the stomach, &c. II. From a *Vapor* which either obstructeth the Lungs, or else hurteth the membrane; and then for the most part, the vapor is sent thereunto from other parts, and diseases; the Cough is dry, and sometimes a little irritating; and it usually happeneth when the patient either speaketh, or gapeth much; In the cure we are to deal with those things that remove the cause sending the vapors; and likewise to endeavor the driving back, and the Revulsion of the vapor; &c. It happneth either in *Feavers*, (which shew that the Paroxysm is now nigh at hand, and forewarneth that impostumations are like soon to follow; and if it remain after the termination and ceasing of the Fever, it then threatneth the danger of a Recidivation or Relapse;) or else in the wringing pain of the Gutts by worms (we cal this Affect *Vermina*) which either by impulse of putrid vapors unto the Lungs, or else by the twinging and gnawing of the Membrane of the *Oesophagus*, which draweth the Membrane encompasing the rough artery into a consent and agreement with it; and it discovereth it self by the signs and tokens of Worms. III. From *Pus* or Corrupt matter which chanceth in the Phthisis, Peripneumony, Pelurefy, the wound and inflamation of the diaphragm &c. IV. From a little swelling, or (as we terme it) *Tuberculum* that is *Crude* and raw, from *Grando*, &c.

II. One is *dry*, in which there is nothing cast forth by Coughing; either by the fault or the faculty, or the Matter. Another is *Humid* or Moyst in which something is ejected and cast forth.

Both these are either *Recent* and newly begun (this properly termed Cerchnos, in which there is only a light and gentle propension to Coughing continually afflicting the sick person, not much unlike unto the Nauseousness of the stomach that goeth before Vomiting; and this is sometime removed and ceased by the alone holding of in the breath for a while) or else it is *inveterate* and old, bringing along with it more grievous symptoms.

III. One is *Periodical*, which twice or thrice in the year, by certain intervals, afflicteth the Patient; and most usually procedeth from a distillation suddenly and violently rushing in.

Another, which either *continually*, or at least with very *little intermission*, troubleth and even wearyeth the Party; which hath for its Cause either a vicious affection of the lungs, some old obstruction, or in a word, some other fixed and rooted internal Cause.

CHAP.

Chap. IV. *Of Hæmoptysis*, or spitting of Blood.

HÆmoptysis *is the Rejection and casting forth of blood (together with a Cough) from out of those parts that are destined and ordained for Respiration and breathing, happening unto them without any inflamation of the aforesaid parts.*

There is no need of *Signs*, in regard that the Affect is apparent unto the sight.

The *Cause* is, whatsoever dissolveth the unity of the veins, whether this happen by means of *Anastomosis*, or a *Dierisis*, and a *Diapedesis*.

The *Cure* consisteth in stanching the blood, and stopping the bleeding; and it especially hath respect unto the Causes. *Observe* in it, that there ought to be a revulsion made by opening a Vein in the Arm; or otherwise, in the Ankle, if there be present a suppression of the Monthly Courses; and likewise that the ill quality of the blood is to be tempered and qualifyed; that the *purgers* are not to be *hot*, neither strong and forcible, that the inflamation in that part from whence the blood issueth forth is to be speedily averted and turned away that the clods of blood are to be dissolved, and this to be effected not with vinegar alone; that before ever we make use of remedyes that avert and turn aside, we ought to forbear Astringents or those things that stay and stop the blood; that Cold *topicks* must be carefully avoyded. Among those Remedies that stanch and stop, there is especially commended *Centinody*, boyled in broth, and applied unto the parts; the *pouder* of *Scaliger*; of which see more in *Petreus* his Nosology.

The *differences* are taken from the Causes, and the parts.

I. One is from the *Anastomosis* of the veins; Another from the *Diæresis*; and a third from the *diapedesis* of the veins; touching al which see further in the Chapter of the Hemorrhage, or bleeding of the Nostrils.

II. One is from the *Brain* transmitting and *sending* it, which *is known* by this, that the blood is little or nothing frothy, rejected and cast forth sometimes by retching, and with a cough; that there is a heavy pain in the Head; that the veins in the forehead are elated and strut out; it *is known* also by the frequent retching and stretching, and the sense of heat, and the taste, as it were, of blood. Gargarismes are here of singular use.

Another from the *Jaws* which is *known* by retching, the solution of Continuity, which is very evident and conspicuous when the tongue is pressed down; which said solution discovereth even the Gums and the parts of the mouth, with a simple exspuition, the Party spitting forth nothing but what is simple and unmixed. *It is taken away* by a Gargarism of the *rinds* of the *roots* of the *wild sloe trees*, *sumach &c.*

Another from the *Throat*, in which there is cast forth blood, with a freqent, smal, and easy Cough, together with a pain of the Larinx.

Another from the *Rough Artery*, in which there issueth forth a smal quantity of blood, that is red and hot; sometimes with smal strings cast forth together with a gentle cough, and some kind of pain in the part affected.

Another from the *Thorax*, or Breast; in which the blood is little or nothing frothy, but blackish, and clotty, sometimes stinking, and mingled with purulent matter; and it is ejected with a Coughing and pain. *It is cured*, 1. By opening the Hepatick vein of the right side, and the blood ought to be drawn forth by degrees, and often repetitions. 2. By *Evacuation* with Cholagogues or such Medicaments as in purging extract and draw forth Choler. 3. By *incrassation*; where *Trochisques* of *Crabs Claws*, *de spodio*, and *de terra sigilata*, or the sealed earth of *Lemnos*, &c. are much approved of.

Another from the *Lungs*, in which the blood is continually frothy, colored, hot, compact, accompanied with a Cough, and void of pain; and sometimes there is together with it rejected a smal quantity and portion of the said blood corrupted and putrefyed.

Another from the *inferior parts*, in which a little blood is cast up by vomit, together with a pain, and a bloody ejection, &c.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al[illegible] the last Editions, Englished by me.]

Title, VII. *Of the Affects of the Heart.*

Chap. 1. *Of the Palpitation of the Heart.*

THe principal affects of the Heart are, a *Distemper*, a *Palpitation*, and a *Fainting* or Swooning.

Touching the *Distemper*, (especially that which is hot) we have spoken already in the second Book. Concerning that which is moist, Cold, and dry, there is nothing singular that offereth it self to consideration, but what we may as wel make mention of in the other *Species* and kinds thereof: and therefore we intend to treat only of those two sorts.

The Palpitation of the Heart is an inordinate, and (by its dilatation and contraction or setling it self) composed motion of the same, whilest it either expelleth that which is burthensome unto it, or else attracteth that that is requisite and profitable unto it, or else restoreth that that is Deficient and wanting.

It differeth from *Trumor* (or the Trembling of the Heart) in that this latter shifteth its place, but the former seateth and fixeth it self in one place alone, whether it be greater or less; this of the Moving faculty; that of the instruments; and it may happen unto those parts that are otherwise immovable.

The SIGNS are evident and manifest enough unto the very senses, to wit, the sight; the touch, and the Hearing. The Jugular Arteries are especially those that leap and Beat; and their pulse is unequal and inordinate.

The CAUSE is either any thing irritating the moving faculty, or else a necessity of refrigeration and cooling, by Reason of the hot distemper; or a Defect and want of the spirits, touching al which specially and particularly in the Differences,

The CURE exceeding difficult, for the Disease extreamly perillous; it being very acute in each particular Paroxysm; but of long continuance, in regard of its intermitting, and frequent returns. If it proceed from the Coldness of the Heart, if it continue long, and from yeer to yeer, and make many Recidivations, it then for the most part is terminated, and by a Syncope concludeth in Death. *It Respecteth*, I. The *Paroxysm*; in this Case the Fomentation of *Balm* and *Borrage*, the *Water* of the *hearts* of *Animals* (known in the shops by the Name of Aqua *Excordibus Animalium*) of *Heurnius*, and the Juyce of *Mother wort*, or (as we cal it) *succus Cardiacæ*, &c. Have their due and proper place. II. It respecteth the Causes; touching which we wil treat further in the Differences.

The *Differences* are taken from the Causes.

I. One is from a *Vapor*, or a *Windineß*, exciting and irritating the Expulsive Faculty of the Heart, which *is known* by this, that its approach and surprisal is sudden and unexpected; that it is excited by every light and gentle motion of the Body; and there often a Trembling Seizeth upon the Knees, and a darkness and dimness upon the Eyes, &c. This, 1. Is either *Collected* there in that same place, being Resolved of a matter Old and thick and fixed in that same place, oftentimes with a Cold distemper, but more seldom with a hot; which if it be unequal, it then raiseth up many Vapors; and it is to be removed and quite taken away by opening the Vein either of the left or the right Arm, according as the Pulse and beating is in this or that more restless and unquiet; and especially if there be present, a Plethory, or over fulness of pure and good blood; by the application of Cupping-Glasses to the Thighs; by the removal of the Cause that is constantly and continually giving in supplies of matter; and moving it up and down, and from place to place, and likewise by the discussion of the said matter. And here there availeth much the *Oyl of Citrons* with some Conserve, the right and *true Rhapontic-um* two scruples thereof given in Wine, the *Confection* of *Alchermes*, the *Treacle Water* with Camphire of *Crollius*. Or, 2. it is sent *from* the *Inferior Parts*, the Stomach, the Womb, the Hypocondria, &c. And then regard must be had unto those parts. 3. Or else it is *Malignant* and *Poysonous*, and then there is present an extraordinary vehemency of the Motion, which passeth into an inequality of al sorts, as also into a fainting of the Heart, and a Syncope or Swooning fits. In this case there is commended the *Cordial* of *Crollius* made of Gold, the *Emulsion* of *Margarites* with the water of Borrage and Cynnamon; the *Experiment* of *Thanckius* of red Cora-

prepared

prepared, and Margarites dissolved in the water of lavender, by the insperſion of the oyl of sulphur, or vitriol; the *water* of *Cinnamon* with the spirit of Juniper, &c. *Epithems* of *Alexipharmicks*. 4. Or else it is *not poysonous*; unto which those things above mentioned may fitly be applied.

II. One is *from a humor, which is known* by this, that its invasion is not altogether so sudden and unexpected, and that it continueth longer. And this is. I. Either watersh, having its residence in the *Pericardium*; which is not known but with much difficulty, albeit the malady be continual, and that the sick persons complain of the suffocation of the Heart. It is taken away by discussives, as wel such as are internal, as Treacle, *Confection of alchermes*, the *Species* of *diambra*; as those that are External, namely, *hot Bread* besprinkled with a cordial water, and applied to the region of the heart. Neither vesicatories, nor venesection are here to be made use of. Or else it is sent *from some other parts*, and by its weight either burtheneth too much the veins, Arteries, and the ventricles of the heart, so that it is thereby deprived of the freedum of its motion (as it hapeneth in wounds) great fear and terror, &c. or else by its quallity it infesteth the same; which is especially wont to be done by Choler adust, and terrefied by excessive heat; and then there wil be need of evacuations and revulsions. For the Cauteryes, if we make use of any, there are *no cantharides* to be therewithal mingled, or put thereinto. *Treacle* outwardly applied (if the matter be cold) is here commended. 2. Or else it is *not malignant*; and of this what hath already been spoken ought to be understood: or else it is *Malignant and poysonous*, and then there is great variety in the Pulse, which chanceth especially in regard of the greatness and smalness thereof, &c.

III. One is *from a Tumor*, which if it be *hot* the inflamation in the Body wil be so much the greater, and the breathing wil be difficult: if the swelling be *hard*, and in the *Pericardium*, the motion is then continnual, and the sick person wasteth and weareth away by degrees, and without any manifest Cause. The *Cure* is to be proceeded in according to that of a Tumor.

IV. From *Worms*, which are discovered by the Convulsion: for the whole and entire cure hereof, see in *Hartman*. The *Bezoar* stone is here of excellent use.

V. From the *defect* of *Spirits*, which is known by the foregoing of dissipating Causes. It is *Cured* by those things that Cheer and Comfort, as odoriferous wine. &c.

VI. From a hot Distemper; touching which the second Book is to be Consulted.

Chap. 2. *Of Fainting or Swouning.*

FAinting or Swooning is a sudden and Precipitate fayling of al the Spirits, and especially of the vital powers and strength, with a pulse much weakened, and almost totally abolished, as likewise with a cold sweat, arising from an extraordinary great, weakness of the Heart, through the fault and defect of the vital spirits; of which those that remain retire also from the External parts of the Body unto the Centre, to wit, the Heart.

According to the diversity of the degrees of this sad affect, so are the names thereof various and different. *Ecclusis* is a smal and light fainting; *Lepothimia* and *Leipopsychia* is that which is somwhat more greivious; and *Syncope* is the most sad and greivious of them al; which last, if it proceed so far, that the pulse or beating is abolished in the whole Body, it is then termed *Asphyxia*; the reason whereof shal be declared in its definition.

The *Signs* (and that first of the affect not yet present, but very *neer approaching*) are, especially in persons unaccustomed thereto, an Anxiety that neither was nor indeed could be foreseen, a *vertigo* or swimming in the head, a representation, as it were, of strange and various Colors, an often reiterated change and alteration of the Pulse. The Signs of the Affect *present*, are, a suden fal and failing of al the Powers of the Body, a Pulse most weak and obscure; and so it is distinguished from the *Apoplexy*, & the strangling of the womb, the Chilness and Coldness of the whole Body, but more especially of the extream parts, a cold sweat, and therefore termed *syncoptick*, breaking forth, and chiefly in the temples, neck and Thorax; which if it be with an abolition of the Pulse it is then to be accounted a sign Pathognomick.

The CAUSE is a sudden fayling of the vital spirits, whithout which neither the heart, nor indeed any other part of the body can perform its actions; but as touching this we shal speak more fully in the differences.

There is *some hope* of a *Cure*, if it be only from the ſingle or ſimple diſtemper of the heart; if it proceed from evident and apparent Cauſes; and if it be by Conſent: There is no hope, if the patient fal often into theſe fainting fits, and that without any manifeſt cauſe; if it befal a weak body; if the ſick perſon be not raiſed out of theſe fits after the ſprinkeling of Roſe water upon his face, and the drinking of wine; nor yet even after *ſneezing wort* hath been adminiſtred; if the heart primaryly lie and labor under this affect; and laſtly, if it affect thoſe that are Feveriſh and (by reaſon of the great ſtore of humors) with an inflamation of the ſtomach and the Liver. The Cure hath reſpect. 1. Unto the paroxyſme; in the which the Spirits are to be refreſhed and cheered with the vinegar of the *flowers of tunica* (a kind of Gilly-flowers) the vinegar of *Rue*, and of the *Elder Tree*; the baliam of *white Ambor*; and likewiſe by putting to the noſtrils wine, *Roſe water*, *Cinnamon water*; and carbuncle water, &c. When the diſeaſe is hot, then cooling Medicaments; but if the Affect be Cold, then thoſe Remedies that heat and warm, are to be adminiſtred; and unto women thoſe things that afford the moſt ſtrong and ſtinking ſavour. Unto the Region of the Heart Epithems, and inunctions of *treacle*, *Mithridate*, and the oyl of *Citron*, are to be applied. *Wine that* is old and *odoriferous*, is here moſt efficacious. II. It reſpecteth the *intermiſſion*; touching which more ſhal be ſayd, now we are come in the next place to ſpeak of the differences.

The *Differences* are taken from thoſe Cauſes that produce a defect of the Spirits.

I. One is, that *Spirits are not generated*, either by reaſon of a defect of Matter, to wit, the blood overmuch evacuated, and the Air corrupted; or elſe by reaſon of ſome defalt in the faculty, as wel in regard of the more noted and conſiderable diſeaſes of the Heart (whether they be from its diſtemper, or whether they be inſtrumental) as in regard of the Affects of the Brain and the Liver, yea likewiſe of the ſtomach and the womb; and of al theſe there ought to be a ſpecial and due regard had in the cure.

II. Another is from the *Diſſipation* of thoſe *ſpirits that are generated* and bred; which is cauſed. 1. by thoſe *inſenſible evacuations*, that are either habitual, or elſe happen from the over great rarity and thinneſs of the skin: (and in this caſe we muſt have recourſe unto perfumes and ſweet ſmelling medicaments, and to thoſe kind of meats that afford a good and wholſom Juyce, the skin is to be conduſed and made thicker with the oyl of the mirtle tree, and with the oyl of Maſtick) or elſe it is from the thinneſs of thoſe things that are to be retained; and therefore here thoſe meats that are not over fluid, and eaſily diſſipated have their place, as being moſt fit and proper. 2. By *Evacuations* that are *ſenſible*, as wel of the blood, as of other humors: (where *Note*, that theſe Evacuations are to be ſtopped; that the body ought not to be beſprinkled with thoſe things that are cold; that in a large and abundant ſweat, only ſuch things as cloſe and bind the skin are to have any place or uſe) 3. By diſeaſes, as overmuch want of reſt and ſleep; (of which enough before) a vehement pain, the gnawing or pain of the ſtomach, the Colick pain, the Nephritick, or pain of the ſtone in the kidneyes or blader, the pain of the Teeth, &c. a ſudden breaking of an impoſtume; in which there may a reſtauration be made by reſtorative meats ſweet ſmels, and reſt. 4. By ſuch things as are *evedent* and apparent, as namely, extream hunger, the immoderate uſe of venus, too much and over violent exerciſe, &c.

III. Another from the *alteration and corruption of the ſpirits*, (which is cauſed by a malignant matter, whether external or internal, as for inſtance, the rottenneſs of humors) poyſon drunk and taken down, the bitting of venemous Creatures, and then the Cure is to be ſought for in its peculiar and proper place.

IV. Another from the *ſuffocation of the ſpirits*; which is cauſed, 1. By *overmuch blood*; and then there are preſent and appear ſigns of a plethory; and in this caſe the opening of the Baſilick vein helpeth much. 2. A *humor* that is *Crude* and *thick*, very much abounding about the heart, and the veins and arteries thereof, the capſula (or purſe of the heart) and the neer neighboring members; and this is either there collected, or elſe tranſmitted either from the head and other parts; and then the habit of the body is Hydropical, neither can the patient undergoe and bear either the opening of a vein, or purgation: Frictions or rubbings downwards, anoyntings with oyls that open and looſen, the uſe of *Oximel* with the decoction of other things that cut and divide, and faſting, (unleſs the pulſe be ſuddenly changed and diſcover an extraordinary weakneſs) al theſe help and conduce much to a Recovery. 3. By *fuligenous* vapours, gathered together in great abundance

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about the Heart and the Members adjacent, by which the reſpiration or breathing is hurt; theſe are ſooneſt and beſt taken away by diſcuſſives. 4. By a *Sudden Terror* and *Fear*; for which Evacuation is moſt convenient, leſt that from the afflux of Blood ſome obſtruction in the Veſſels, or elſe an Inflamation ſhould be excited. For what remaineth, ſee further to the Treatiſes, of the Practical Phyſitians.

Title, VIII. *Of the Affects of the Paps, or breaſts in Women.*

Chap. 1. *Of the Diſeaſes of the Papps.*

Article, I. *Of the Tumors or Swellings of the Paps.*

THe Affects of the Paps or Dugs are either Diſeaſes, or Symptoms: unto the former of theſe there belong, *Tumors*, the Cancer, and the *Magnitude*.

The *Tumors* of the Paps are four.

I. An *Inflamation*, which is a hard ſwelling. *It is known* by the redneſs, the pain, the pulſe or beating, and the heat thereof; by which it differeth from that we cal the Clotting or Curdling of the Milk, and the overgreat abundance thereof. *It ariſeth* from the great ſtore of Blood that is attracted, tranſmitted, or ſuppreſſed. *It is Cured*, 1. By a Diet that is thin and ſpare, cooling and moiſtening. 2. By Diverſion, which is performed by letting blood in the Ankle, if the Cauſes be ſuppreſſed. 3. By *Evacuation*, by opening the internal Vein of the ſame ſide, and ſo letting out the Blood; as alſo by a gentle Purgation. 4. By the Application of Topical Remedys, in the Inflamation of ſuch as thereunto accuſtomed. And here we are *to take Notice*, that the Repellers ought to be temperate, leſt that the Heart be overmuch cooled; that in the *Augmentation* thereof there is commended beer and butter wel warmed, and ſo applied; that the extream *Hardneß* may moſt properly and ſuccesfully be prevented and removed by the Medicament that is formed and made of the *Marrow of a Calves Thigh*, two ounces thereof, of *Oeſipus* or the moiſture of greaſie ſheeps Wool, one ounce; of *Saffron four ſcruples*; of *Cummin* wel *bruiſed* two ſcruples; that when it is *Suppurated*, (in regard that the Breaſts or Paps are Spungy and ful of hollow Caveties) it is moſt commonly to be opened in divers places thereof; that the *Pap* affected is very rarely cured and healed, unleſs the Milk of the other that is ſound be dryed up, in regard that the blood equally floweth unto both; and laſtly, that the *Pain* is to be moderated and mitigated; if it be in Summer, moſt fitly with the Leaves of *Henbane*; if it be in the Winter, then with the *Roots* of the ſaid Henbane, roaſted under the Embers, and then wel beaten together with Hogs Greaſe.

II. *Oedema*, which is ſomtimes diffuſed and ſpread abroad throughout the whol Paps or Breaſts, ſo that they wholly and equally ſwel. *It is known* by this, that it is ſoft, and that by intervals, and at certain times (to wit, in the time that the Courſes flow) the ſwelling and the pain is exaſperated; but yet notwithſtanding, that there is evermore ſome of the ſwelling remayning. The *Original* and the *Cure* hereof are to be ſought for out of that which is ſpoken in the general touching theſe Tumors. And here it is only *to be Obſerved*, 1. *That* in the retention of the Courſes, thoſe meats that are Toſted and Roaſted are not ſo fit and convenient. 2. *That* the ſtronger ſort of Maturatives are to be made choice of in regard that here the matter is tenacious and very loth to yield. 3. *That* a due regard is likewiſe to be had of the Stomach, that is the Receptacle of the Flegm.

III. The *Scirrhus* of the Paps is either Exquiſite, or *not Exquiſite*, 1. The *Exquiſite* is various. I. One is that which is but *newly* begun, or but *now beginning*, which upon the touching thereof is a little painful; and in this regard it is diſtinguiſhed from a Cancer that is likewiſe but now beginning; and it is very hardly Cured. Another Old and *Inveterate*, which is hard, without pain, incurable by Medicaments, eſpecially if it reſemble the color of Capers; or if haires grow therein; it is ſomtimes Cured by Manual operation. II. Another is *by the Congeſtion* or heaping up of a Humor that is in it ſelf thick, in the Curing of which we are not to uſe Vinegar, either in the beginning, or long, at any time, leſt that either the reſidue thereof ſhould be hardened and become like unto a ſtone; or elſe that the ſubſtance of the part being overdryed ſhould waſt and conſume away: neither ought we to attempt any thing by Manual operation, if the whol

whol Breasts or Paps Wax hard, and that the swelling so add hereunto the Thorax or Chest, that without extream peril it may not be thence removed. Another *by Resolution*, in which the thinner part is dryed up by preposterous Medicaments; and which *Galen* Cured by an Evaporation of the sharpest and soureſt Vinegar, poured forth upon the *Pyrites* stone, (we cal it the fire stone) Red hot, but this was after the use of liquid and moystening Medicaments. In the *Curing* of them al, we must be sure that we have a special regard unto the Spleen, and the suppressed Courses, and that Emollients and Resolvers succeed one the other, and be interchangably applied. 2. The Scirrhus *not Exquisite is known* by this, that the swelling is bigger than in a Cancer, of the color of Ashes, with an hardness, and the Veins thereof somwhat black and blewish in the outward parts; and that it somtimes vexeth the Party, especially upon the neer approching of the Menstrua or Courses. *It ariseth* from Black Choler mingled together with Melancholly, especially in such as are barren, or such which soon ceased their Child-bearing, or else, lastly, those that have altogether a suppression of their Termes, or monthly Courses. In the Curing hereof, among the Repellers without astriction, there is commended the Unguent *of Frogs*; of which see further in *Castrensis* his first Book of the Diseases of Women, Chapter, 21. See likewise touching the Manual Operation in the Same Author.

IV. A *Windy Tumor*, which *is known* by this, that the pain is very acute, especially in the left breast, with an Excruciating and torture of the Arm, the whol side, the Ribs, and the Shoulder blades. *It ariseth* from an Exhalation that is thick and drawn up from the Menstrua, or the Seed suppressed, or else from some other Excrements, and so extending the said Paps. In the *Cure* hereof, take notice, that a Linnen Cloath soaked in *Soapsuds*; or else wet in Water, and then dryed, is commended for dissipation, and when there is occasion to disperse and Scatter; and that the Pain is wel mitigated with bread taken hot out of the Oven, and then moystened with the *Oyl of Nard*, the shops cal it *Oleum Nardinum*, and of *Rue*.

Article, II. *Of the Cancer, and Greatness of the Paps.*

I. The signs of the *Cancer* in the Breasts, as also the Causes, and the Cure, may be known, and sufficiently understood by what hath been already said in the Second Book touching a Cancer. Let it suffice here only to add, I. That the Cancer that is *not Exulcerated* may be rendered and made more milde and gentle, if the Courses being recalled return to their pristine state and condition, either by the Course and Vigor of Nature, or else by the assistance of Art, and the help of Medicaments; or else if the Body be preserved free from a Cacochymy, either by a good order of Diet, or else by Medicaments. There may likewise be applied unto it that Unguent that it compounded of *Lithargyrum*, two ounces thereof, in a Marble Mortar drawn about with a Leaden Pestle, and incorporated with *Rose-water* and the *Oyl of Roses*, of each three ounces. II. For the Cure of the Cancer *Exulcerated*, see in *Hartman*, who writeth that the said *Cancer* may be perfectly Cured with *Aqua Fuliginis* that hath in it a clensing Faculty, and with the *Oyl of Arsenick fixed*, and wel tempered in Plantane Water.

II. The *Magnitude* of *the Paps* (unseemly as it is) is exposed unto the sight. *It ariseth* from the often handling and stroaking of them, and especially from the great abundance of Flatulency and windiness, the Retention of the Courses, &c. The Cure hereof ought therefore to be Endeavored, because that by how much the greater and bigger they grow, but so much the more easily they may be affected with the Cancer. *It is performed*, 1. By *Meats* that are Astringent, but little or not at all flatulent or Windy. 2. *By Driving back* the blood, or other the Humors flowing unto them; and here the Juyce of Hemlock, and the Partridg Eggs, anoynted upon the place, are much approved of. 3. By the *Discussion* of that that is already gotten unto the part affected; for which purpose that Unguent that is compounded of the Dirt or Clay that is *to be found in Barbers Mils*, *two ounces* thereof, the *Oyl* of *Myrtle* one ounce, and Vinegar half an ounce, is much commended. 4. By the *Compression* of them by Artificial ones of Lead anoynted on the inside with the Oyl of the Seed of *Henbane*, &c.

Chap. 2. *Of the Symptomes of the Breasts.*

Article, I. *Of the want of Milk, too great abundance thereof, and its Coagulation or Curdling.*

THe Symptomes of the Breasts are, the *Defect*, *Redundence*, and *Coagulation of the Milk*.

I. The *Defect of Milk* (according to the Nature of the Causes) is twofold.

For one is from a *Fault* in the *Blood*, which faileth by reason of Di[illegible] that over dry the body; from a distemper in the Liver, from much fasting and spareness of Diet; and lastly, from extraordinary Evacuations; of al which there must be care taken in the Cure. Now to generate and breed Milk, these things following are experimentally found to be good, Namely *Crystal* prepared, the leaves, Roots, and Seed, of *Fennel*, while they are fresh and green; the pouder of *Earthworms* prepared, and taken in Wine, the *Electuary* of *Zacuthus*, in the Ninth Book of his Pract. Hist. and last Chapter.

Another is from somthing *amiss* in the *Lactificall* or Milk breeding *Faculty*, when it is so weak, that it can neither attract the blood, nor contract it, either by reason of External refrigerating Causes, and such as are likewise Astringent; or else by reason of other Diseases; unto which we ought to have due respect in the Cure.

II. The *Redundance* or over great store of Milk proceedeth from the abundance of blood, and a strong Lactifical Faculty. In the *Cure*, the Luxury and prodigality of Nature in the breeding of Milk is to be restrained; and the Milk that exceedeth and is over and above, ought to be dissipated and dryed up. For this purpose venesection in the first place, is approved of; and then driving back by Medicaments, which ought to be put upon the Paps, towards the Arms; And also those Medicaments that wast away and lessen the Milk, such as that they cal *Muria* (a kind of brinish Liquor, or Pickle) *with the pouder of Cummin*, and *Hemlock*, Boyled in Chervil Water and Vinegar, &c.

III. The *Coagulation* or Curdling of the Milk is then Caused, when the more thin and subtile parts do by little & little exhale, & the thicker remain behind; from whence the Glandules or Kernels wax hard, and swellings, yea and also impostumes arise. In this Case the Infant ought not to be suckled out of the Breasts affected; and yet notwithstanding the Milk is to be suckt out, lest that which is bred anew should be Curdled by that Milk that is already become (as it were) Cheese, and that part of the Curdled Milk that begins to be dissol[illegible] should putrefie. For the Dissolving hereof, excellent good is that *broth* that is made of the stalks of the Herbs following, (together with an Ablution or washing of the Paps with Water, Wine, and Vinegar mingled together;) a Fomentation of the Decoction of *Marsh-Mallows*, *Fenugreek*, and *Melilote*, &c. A Liniment laid thereupon of the *Oyl* of *Roses*, *Sweet Almonds*, the *Juyce* of *Smallage* and *Parsly*, and *Vinegar*, *in which there hath been first dissolved* the *Curd* or *Runnet* of a *Hare*. The *Water* of *Hemlock* is thought to be good for both the foresaid Purposes.

And so much of the Diseases of the Chest or middle Region.

THE

THE TENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Concerning the Diseases of the lower Belly.

Title, I. *Of the Affects of the Gullet.*

Chap. 1. *Of the Diseases of the Gullet.*

THe Diseases of the lower venter comprehend under them the affects of the *Gullet*, *stomach*, *Guts*, *Anus*, *Mesentery*, *Liver*, *Spleen*, *Kidneys*, *Bladder*, *Genital Parts* in Men and Women, *the Navel*, and *Belly*.

The Diseases of the Gullet are, *Distemper*, *Tumor*, *Straitness*, *Wounds and Ulcers*.

Article, I. *Of the Distemper and Tumor of the Gullet.*

I. The Distemper of the Gullet *is a recession of it from its Native to a preternatural Temper*: its *known*, by the swallowing being hurt. 'Tis *divided* into *a hot one*, which happens from without, from fumes, pouders, &c. *from within*; from Vapors in burning Feavers, a hot and dry Distemper of the Womb; and then there is perceived a Redness and Roughness on the Tongue, with thirst, which is cured by cooling means & somwhat clensing. 2. into *a cold one*, which either proceeds from too cold drink, or otherwise, and is taken away by things that heat. 3. Into a moist one, which issues from the Desluxions of catarrhes, Salivation, &c. and Causeth a Relaxation of the Gullet, so that the lower part of it, and the upper mouth of the Stomach lie open. 4. Into *a dry one*, which ariseth from dry things and Causeth Roughness, and is Cured by suppings of Chicken Broth, or fresh butter.

II. *A Tumor of the Gullet, is its excess in its Magnitude.* 'Tis *known* by the pain in swallowing, most of al in the hinder part and back; by the stoppage in swallowing, so that

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if a great bit be to be swallowed, sometimes the drink runs through the Nose; it proceeds from the same Causes, from which we said Tumors in general did arise. 'Tis often hard to cure, because it endangers Suffocation, but after the same manner as other tumors, viz. In the beginning by repelling means, in the Augment by external and internal resolvers, in the state by discussives; let vomits be avoided for fear of suffocation, unless when tis come to suppuration that the Tumor ought to be broke. 'Tis divided. I. Into *a hot one*, with which is Joyn'd a Feaver, great thirst, pain, in the Cure of which bleeding takes place: and into *a cold one*, in which the pain is less, and in the Cure of which the repellers ought to be gentle, the resolvers and discussives stronger. II. *Into that which possesses the upper part of the Gullet*, and then meat cannot go down, and into that *which infects the lower part*, and then the Meat after it hath descended a little way stops there.

Article, II. *Of the Straitness, wounds, and Ulcers of the Gullet.*

I. The *Straitness* of the Gullet *is when its Passage is Contracted*: 'tis *known* by this, that liquids are easier swallowed than solid things. 'Tis *divided* according to its Causes, for one is from *external Causes*, as from astringent medicines, or some things swallowed; and then the business is known from the standers by, or the Patient himself: it must be cast up by vomiting or Coughing; or furthered by moistning and Emollient means applied outwardly and inwardly; or be thrust down with a Sponge Dipt in Oyl of sweet Almonds, or taken out with that excellent Instrument of *Fabricius Hildanus*. Another Cause is from *a Tumor*, *Worms* ascending out of the Stomach and Guts; from *Scorbutical*, and *Hypochondriacal Vapors* distending the Gullet, and compressing the rough Artery; from the Luxation of the Vertebræ of the Neck and back, which may be seen in their proper place. *Another is from thick Flegm*, curdled milke, &c. Sticking in it, where Oxymel of squils and vomits takes place.

II. The *Wounds of the Gullet* in respect of their Causes are twofold, for either they are Caused by a weapon, and then the situation of the wound shows it, if vomiting happen, somwhat is cast forth through it, and tis hardly Cured: *Or from some small bone swallowed*, and then tis easily manifest. Medicines that are grateful to the Stomach ought to be administred.

III. An *Ulcer* of the Gullet is *known* by the pain, when some sharp, sour, or Salt thing is swallowed though in little quantity, by its biting, and by the casting up of matter. 'Tis hard to be Cured because the parts wil scarce grow together in a Membranous body. It hath its *Differences* from the *Causes*, for one is from external corroding things, as *Aqua Fortis*, *mercury Sublimate*; and then we must work with Lenient Vomits, and such as are clammy, as the Mucilage of quince Seeds, Fat broths; *Another* is from a wound, *Tumors*, *impostums*, *another* from the casting up of sharp Humors, &c.

Chap. 2. *Of the Symptomes of the Gullet.*

AMongst the *Symptomes of the Gullet*, the Principal one is the *hurt of swallowing*, which is twofold: for *one is* by Reason of the resolution of the Gullet, the faculty being hurt, by Reason of the Resolution of the Nerves of the sixth or seventh Conjugation; its *known* by this, that solid things are easier swallowed than liquids, as being thrust down with less labor, for these require a greater force, to make them yeeld to the impulsive Body. It ariseth either from a Defluxion, and then there is felt a heavines in the Head, a distension of the Neck, and the Rheum it self; or from some other Disease, tis dangerous, and ought to be cured by Medicines good against Palsies: the *Second* is by Reason of Convulsions, which ariseth also from a wound, and tis most dangeous in old people. There is *another* from the affects of the part, of which we have treated formerly.

Title, II. *Of the affects of the Stomach.*

Chap. 1. *Of the Diseases of the Stomach.*

THe *Affects of the Stomach* are either *diseases*, or Symptoms; *to these belong distempers*, *Tumors*, *wounds and Ulcers*, *the other see hereafter*.

Article,

Article, I. *Of the Diſtemper of the Stomach in general.*

The Diſtemper of the Stomach *is a preternatural conſtitution of its ſimilar Parts in the firſt qualities.*

The SIGNS of that are the *hurt* appetite and concoction, a change in the Excrements, a heavineſs in the Stomach, and waving of it, and diſtillations from the Head which moſt commonly happen.

The CAUSE is whatſoever can Internally or Externally alter it. The CURE is performed, I. *By the alteration of the diſtemper by contraries*, then the Medicines ought to be grateful to the Stomach, rather ſolid than liquid, rather meats that are Medicinal than exact Medecines, mixt with aſtringent things that the Stomach be not Relaxed, not ſharp, Salt, corroding, leſt they offend the mouth of the Stomach: if the Medicines be external, they muſt be applied to the ſword-like Cartilage towards the Navel, and upon the back to the twelfth and thirteenth Vertebræ. II. *By taking away the Cauſes both External and Internal.* III. By *Strengthening the Stomach*, where appropriate Medicines take place, as the Magiſtral of red Coral, the inward Coat of a Hens maw, &c.

'Tis *divided* into a diſtemper without or with matter, of which in the following Articles.

Article, II. *Of the Diſtemper of the Stomach without matter.*

A Diſtemper of the Stomach without matter, *is a preternatural diſpoſition of the ſimilar Parts of the Stomach in its qualities, produced by external and Internal Cauſes without the preſence of any Humor.*

Its SIGNS and *Cauſes* ſhal be explained in the *differences*, the *Cure* relies only on alteration, and removing the Cauſes.

'Tis *divided* according to the qualities.

I. *One is* Hot, which is known from the want of appetite to mear, indorous Belchings, clammineſs of Spittle, dryneſs of the jaws and Tongue; it ariſeth externally from the ſix non Natural things encreaſing its heat; internally from internal Diſeaſes, burning Feavers, Inflamation of the Liver, Spleen, &c. 'Tis *Cured*, 1. With cooling things, but lightly and not too long applied. 2. With cooling Diet where Barley Water takes place, and Emulſions of the four greater cold ſeeds.

II. *Another is cold*, which it *known* from the greatneſs of appetite, unleſs it be too cold, by ſour belchings, if neither much nor cold meats have been eaten, nor flegm do abound, by wind and two much ſpitting. It ariſeth externally from the ſix non Natural things, internally from the parts incumbent, as the Liver, Spleen, and Muſcls of the Belly which induce a coldneſs. 'Tis *Cured*, 1. By appropriate heaters, but not too much, inwardly and outwardly moiſt, leſt drineſs be cauſed. 2. By Diet, where Wormwood Wine takes place; it is diſtinguiſhed into a poſitive, of which we have now treated, and a privative, which is conjoined with drineſs. It ariſeth from the defect of innate heat which is Cauſed by things that heat too much, as the frequent uſe of Wine, the want of nouriſhment, the heat and drineſs of the incumbent Parts, as of the Liver, of the muſcles of the Belly, and the Cal.

III. *Another moiſt*, which is *known* by want of thirſt, by abundance of ſpittle, &c. it ariſeth from external Cauſes inducing moiſture, it is Cured. 1. With dryers without eminent heat or cold, as are the aſhes *of Hens Guts*, of *Swallows*, *burnt harts horn*, *red Coral*, *troſchiskes of Vipers*, *Galangal*, *burnt Salt*. 2. By a contrary Diet.

IV. *Another dry*, which is *known* by the extenuation and Contraction of the Region of the Stomach, which is accompanied with a ſlenderneſs of the whol body. It ariſeth externally from a drying Diet, too much emptying and fumes of mettals; internally from the dryneſs of the incumbent parts. The cure is the more difficult, becauſe with the Feaveriſh heat it induceth a conſumption; if vomiting happen it argues a great want of innate heat; the Cure is performed. 1. By moiſtening which is beſt of al accompliſht by nouriſhments that are medicinal; 2. by Diet, where Milk takes place, beginning with a ſmal doſe, new layed Eggs, Almonds, Raiſons, Pine Nuts, &c.

There *is another compound*, the Nature of which may be collected from the ſimple: thoſe that labor of a hot and dry diſtemper, have little blood, unfit for nouriſhment, are lean, bound in body, with Veins eminent, ſubject to the dry Scab.

Article. III. *Of the distemper of the stomach with matter.*

A distemper of the stomach with matter is, when the stomach fals from its temper by reason of some humor either generated there, or falling thither from some other place.

The Signs and causes are put in the difinition: in the *differences* they shal be more largely Explained.

The CURE is finisht. 1. By the alteration and evacuation of the peccant humor. 2. By strengthning of the part by appropriate external meats. Looke into the differences.

The Differences of this Distemper are Divers.

One is from the matter generated in the stomach; then the symptoms appeare continually; the whole body and al the members are sound. It is cured by emptying of the matter, which is comodiously done by medicines of aloes, hiera picra, mechoacan; and by corroborating the part. Another is from matter falling from another part, then that part which was periodically affected, is no longer troubled; some accustomary evacuation is suppreſt: or the usual diet hath bin changed, or somewhat stops in the whole body, or in some particular part. The symptomes are more remisse. For the cure we must have respect to the parts that send the matter.

II. *Another is from the matter sticking in the cavety of the stomach*, then there is a waving or nauseousnes which is attended with vomitinge or a loosnes. Another from the matter impacted in the coates of the stomach, then there is a nauseousnes without vomiting, oftentimes with the hickops.

III. There *is another chollerick*, viz. *hot and dry*, which besides the former signes is *discovered* by nauseousnes, bitternes of the mouth, with a certain sence of knawing, and sometimes by chollerick vomitings. It ariseth from choller, either sent thither from the bladder of gal, or generated there from corrupt meats. 'Tis cured. 1. By dyet, wherein chicken broath seasoned with lettice and endive doth excel. 2. By emptying of the matter, both by vomits made of the pouder of the down or flower of walnuts dryed in the smoak and given a dram weight in honey and water; and purgers compounded of hiera picra. 3. By alteration and coolers and moisteners, amongst which do excel succory and violet water, syrup of pomegranates, of coral of Quercetan, of strawberries, currans; tincture of roses, lettice and succory condite, &c.

IV. *There is another flegmatick, to wit cold & moist, which is known*, both by the signs formerly reckoned up, and by a sence of heavines in the stomach especially some hours after meat, by a waving & sowr belching, it proceeds from thin or thick flegm, tis cured. 1. By *emptyers* both by vomit, to which in thick flegm we ought to premise things incisive given in a solid form (amongst which excels diatrion pipereon, diacalaminth, the essence of balme, penny-royal, &c.) and by purging; so that the purges be administred either alone, or mixt with preparatives. The vomiters are, viz. of salt of vitriol given in broth, oxymel with the decoction of radish, *Heurnius* his vomiter of hellebor. 2. By *strengtheners*, amongst which excels inwardly taken, the roots of callamus aromaticus and citron pills, and of oranges, with the phylosophical spirit of vitriol, and the Elixir proprietatis: outwardly, ointments compounded of the distilled oyls, of wormwood, mint, cudmin; peneroyal, mastick, a cerote of one part of pure Ladanum, with too parts of wax applied an hour before dinner, is good. 3. By a contrary diet.

Article. IV. *Of the tumors of the stomach.*

A tumor of the stomach is when the same is elevated into a bulke or magnitude, greater than is due. It contains under it three things.

I. *Inflamation*, which is *known* both from the general signs, and also from the vehement pain, heat, thirst, a most burning feaver, vomiting or often going to stool, unless when the orifice or pylorus is possest, to these are added the symptoms of the principal faculties, if the brain be drawn into consent. It ariseth from blood preternaturally poured forth by the veins derived from the porta whether it be pure or mixt, whether sent thither or attracted. Tis cured after the manner of other inflamations, where observe. 1. that emptying by vomiting or stool is not convenient, unless where there is an eruption of matter collected. 2. Bleeding is rather to be repeated, than to take much blood at once. 3. Amongst external repellers, sugar of saturne with plantain or nightshade water, adding a little of wormwood or mint, is commended; internal things ought to be administred with a moderate actual coldnes. 4. resolvers which ought to be gentle and

Emolient,

Emollient, muſt be corrected with aſtringents by reaſon of the excellency of the part, 5. If ſuppuration cannot be prevented, the heat muſt be cheriſht with things moderately hot, moiſt and clammy, both inwardly and outwardly. 6. The impoſthumation may excellently wel be broken either with the juice of Scabious alone, or mixt with honey. 'Tis divided according to the parts of the ſtomach. One is of the whol ſtomach, in which what poſture ſoever the ſick lyeth down in, he is ful of pain. Another is of part of the ſtomach, 1. Either external, in which the pain after the concoction of the meat is encreaſed, by reaſon of the intenſion of the tranſverſe fibres, the appetite is not very bad, nothing of the impoſtumation is caſt up by vomit. Or of the internal part, in which al things are contrary; but 'tis better, if the matter paſs into this, than under the peritoneum; becauſe there it may eaſily be purged forth, but here not ſo. 2. Either of the upper part, in which becauſe 'tis endued with exquiſite ſence, there happen moſt greivous ſymptomes, and the ſtrictneſs is moſt of al perceived towards the latter end of ſwallowing, where the attraction is ſtrongeſt. Or of the lower part, in which the pain is encreaſed more in the diſgeſtion of the meat. 3. Or of the former part in which the tumor may be perceived by the touch. Or of the hinder part, in which if the outſide be affected, the ſick can hardly lie down on his back, if the inſide, not eaſily on his face.

II. An *Oedema* and *Schirrus*, of which we meet with nothing remarkable.

III. An *Inflation*, when the magnitude of the ſtomach is increaſed by wind conteined in its capacity, 'tis *knowen* by its diſtenſion, moleſting the region of the ſtomach above the navel by the tumor, and by its reſiſting the touch, by belchings with which the malady is eaſed. It *ariſeth* from matter miniſtring wind, of which in its differences. T is hardly cur'd, if it befal one recovering, becauſe it ſignifies a relapſe; if it be in acute Feavers, becauſe it ſhews that the natural heat is waſted by the preternatural; if it laſt long, becauſe it endeth in a dry dropſy. How it may be be cured, ſee in the differences. 'Tis divided according to the nature of the cauſes, 1. One is from *windy nouriſhment*, which is knowen by the patients relation, 'tis cured with good dyet and diſcuſſives, towit with balſome of fenel, oyl of carawaies inwardly and outwardly applied, by baths of warm water, in which are boyled danewort roots, by baggs, by bread hot out of the oven ſprinkled with oyl of Rue. 2. *Another is from a flegmatick matter which cauſeth wind*, and is *known* from the ſigns of a flegmatick diſtemper, *'tis taken away* by emptying the matter prepared, and diſcuſſing the wind, a great cupping glaſs, alſo doth diſcuſs being applyed with much fire, without ſcarification, and often repeated, and one dram of ſows paſterne-bones burnt and prépared with Rue water given in a draft of wine.

Article, 5. *Of the wounds and ulcers of the Stomach.*

I. *The wounds of the Stomach* are *known* from hence, that the belly is looſe, deeper over againſt the Stomach, hickops, and vomiting of choler do enſue, ſometimes the meat and drink is caſt up again. They are no waies cured, if the whol body of the Stomach be perforated, or if its upper part about the orifice be wounded; very difficultly, if only the outer coat, and if the bottome of the Stomach which is fleſhy, and able to endure medicines. The cure is accompliſht as in other wounds; maſtick any waies taken is good. The wound that penetrates and is large, ought to be ſowed up, leaving an orifice in the lower part; they muſt abſtaine from al ſharp things in their dyet.

II. *An ulcer of the Stomach* is *knowen*, by the pricking and ulcerous paine, by a heat moleſting above the navel, cauſed by the receiving in of hot meat; by ſtinking belchings, by cauſes generating ulcers, by a ſlow feaver, &c. It ariſes, 1. From external things, as ſharp medicines and poyſons, and then the relation of the patient which ſhew it. 2. From ſharp humors there derived from ſome other part, or generated there; and then we muſt have recourſe to the diſtemper with matter. 3. From an impoſtumation broke after inflamation, and then this was precedent. 4. From the rupture of a veine, and then vomiting of blood proceeds. 'Tis hardly cured, both becauſe deterſives cauſe paine, and becauſe being alwaies moiſtened by the chyle it cannot be dryed. Inveterate ulcers cauſe a lientery. In the cure note, 1. The humors if there be any, ought to be brought forth only with lenitives. 2. Vomits are wholly to be ſhunned, leſt that which is ulcerated be delacerated more. 3. To internal conſolidating medicines, ſomwhat moderately abſterſive is alwaies to be mixed.

Chap 2. *Of the Symptomes of the Stomach.*

Article. 1. *Of the pain and heat of the Stomach.*

THe Symptomes of the Stomach are *Paine, Heat, want of appetite, too great appetite, a vitious appetite, too great thirst, hurt of concoction, hickops, belching, rumblings, nauseousness, Vomiting, and the Cholerick passion.*

I. The *paine in the stomach*, is a sad sensation of the same, arising either from things that distend it, or knaw it, and so dissolve its continuity.

There is no need *of Signs* in this symptom, unless the patient be diseased in mind.

The *Cause*, is explained in the definition, and we shal be more large of it in its differences.

The *Cure* hath respect unto. 1. The symptome it selfe, if it be too urgent, in rebating of which a bagg made of the roots of marsh mallows, camomel flowers, red roses & wormwood, is good. Quercetans anodyne water in his Pharmacop. restitut. Oyl of chamomel saphirine, a bolus made of three drams and a halfe of electuary diaphenicon, and two scruples of philonium romanum is most commended by some. Four grains of laudanum opiate with the decoction of chamomel. After the use of all which, things that strengthen the stomach must be applyed. 2. The cause it self, of which in the differences.

The differences are taken from the parts and Causes.

I. *There is one pain of the coats which is simple*, and to which the former things ought to be applied: another of the mouth of the stomach, which discovers it self by faintings and swounings, sometimes by immoderate sweats and anxiety: and then it arises both from an attrition of the Stomach, which happens after taking of meat with coldness, a stoppage of the pulse, and breathing, either from the meat boyling in the Stomach before it be sent forth, or turned into flegm; and tis cured with oyl of spiknard applyed hot to the Stomach, and one dram of pepper exhibited. And from the astriction of the Stomach, which happens by reason of the astriction of both orifices, and the meat descending it ceaseth; they ought to be distinguisht. The cure is past hope, if it befal them who have an orifice of exquisite sence; if their extreme parts be cold, and if it proceed from poysenous things.

II. *Another is from external causes*, as kernels, pins, sharp, corrupt, or much meat, and then a vomit does good; and if poyson have been taken, things alexipharmacal must presently be applied.

Another is from internal causes. 1. From humors, viz. Cholerick, Flegmatick, either falling thither from some other part, as is wont to be in feavers, or generated there, which if by mixing with the meat they become less acrid, upon taking of nourishment the paine is asswaged; if cleaving to the coates they are stirred by taking of meat, or sticking to the bottom they be raised up; the paine is increased after meat. The cure ought to be fought from the chapters of distempers. Observe that hiera in a tough humor ought to be mixt with stronger medicines that it may overcome the matter. *Zacutus* his syrup and pouder, Lib. ult. c. 2. n. 11. hist. is very good. 2. From vapors either contained there, of which Tit. 2. c. 1. a. 4. Or sent from some other part, from the womb, worms, &c. 3. From worms ascending to the orifice, of which in its place.

III. *Another is from diseases molesting the Stomach*, viz. *distemper, tumors, wounds, ulcers, &c.* of which we treated before.

II. *The heat of the stomach, is an ebullition of humors in the stomach caused by the power of preternatural heat, so that the heat is perceived even to the throat.*

There is no need of signs in this symptom.

The CAUSES, are acrid vapors raised either from meat acrid in its own nature, in cholerick bodies, during the concoction of the meat, and the Stomach troubled with strong motion: raised up from a cholerick humor, which whiles they are compelled to break forth by the gullet sticking there, they burn that, and the mouth of the Stomach.

The CURE, is more difficult in those whose substance of the stomach is as it were besmeared with choler, because the Region of it is dyed by the bladder of gal with a saffron color, and the same stain doth penetrate even to the internal membrane. It doth respect, 1. The heat it self, to allay the which many remedies are given; the cheif are these, a Bolus compounded of two drams of sugar of Roses, two ounces of crabs eyes prepared and bole armenick half an ounce, swallowed in parcells. A pouder compounded of Christal calcined one dram and

and an half; Pearles prepared one ſcruple; Coral prepared, Chalk, each one dram, Sugar Candy two drams: the doſe is one dram given in drink. Spirit of vitriol coagulated one ſcruple given in drink, which ought to follow a liniment of the beſt pomado half an ounce: Camphire one dram, oyl of bricks two drams, badgers greaſe half an ounce; Salt of vitriol one dram. 2. The cauſe of the heat, which is to be tempered, and emptyed.

Article, 2. *Of the want of Appetite.*

An anorexy, is the proſtration of appetite in relation to al meats, ariſing from the defect of the ſence of ſucking in the upper orifice of the Stomach.

This ſymptom needs no *Signs*, The patiént complaineth, and 'tis obſervable by the ſtanders by.

The CAUSE, is the defect of the ſence of ſucking in the lower orifice of the Stomach, which from whence it proceeds, ſhal be ſaid in its differences.

The CURE *is doubtful*, if it happen in the declination of a diſeaſe, or from the long continuance of it, or from weakneſs, or moderate evacuation, becauſe it indicates the extinction of natural heat, and threatens a relapſe. If it befal children, who are naturally great eaters, and want much nouriſhment, becauſe it ſignifies a great preternatural excels. If it afflict in a diſeaſe of long continuance with ſincere ſtooles, becauſe it ſhews an extinction of the appetitive faculty in the orifice of the ſtomach, either by reaſon of extraordinary cold, or of ſome matter extreamly putrefied. If it ariſe from the brain by the hurt of the nerves of the ſixth conjugation. Of little hope, if in ſome diſeaſe there preſently follow it a great appetite to meat, no criſis preceding, nor an abatement of the diſeaſe, becauſe, it ſignifies a hurt of the brain, and an extinction of the ſenſitive faculty. It relates to the cauſes, of which we ſhal treat in the differences.

The differences of the proſtration of appetite are various.

I. One is *Greater*, which is properly called *Anorexy*, in which nothing at al is *deſired*, with which agrees the former definition. Another is leſs, called a dyſorexy, in which meat is deſired, but leſs or later than nature requires it, it and ariſes from the ſence of ſucking weakned or overthrown.

II. There is *another without nauſeouſneſs and hating of meats*, which may be called inappetency; of the Cauſes of which ſhal be treated in the following difference. Another with hating, and tis called a loathing of meats. It ariſeth from Cholerick and corrupt Juyces, yet void of acidity and ſaltneſs, which becauſe they are unfit to nouriſh the body, they are not ſuckt in by the veins, yet do poſſeſs the Orifice of the Stomach. 'Tis Cured with thoſe things which do correct a hot diſtemper, and empty the Humor. See the Cataplaſme, in *Zacutus* l. vlt. c. 1. n. 5.

III. There *is another from the want of Sucking*, which is Cauſed, 1. *By the abundance of nouriſhment in the whol body*, in which the ſtrength is not caſt down, the which is taken away by faſting, exercile, frictions, &c. 2. By *an impotency in the Stomach*, to corrugate or wrinkle it ſelf up, either by reaſon of a diſtemper, either hot, relaxing the ſtomach, and diffuſing the matter; or cold, deſtroying the Native heat, the firſt Cauſe of appetite: or by reaſon of a redundancy of vitious humors, eſpecially crude Excrement, inſipid, Clammy and Flegmatick, whether generated out of the meats, or flowing thither from ſome other part. The Cure ought to be fetcht from the Chapter of diſtemper. 3. *by a defect and weakneſs of attraction.* Either by reaſon of a cold and moiſt diſtemper, or by reaſon of the interception of the paſſages, by the obſtruction of the meſaraick and hollow part of the Liver, in the Cure of which, thoſe parts muſt be reſpected. 4. By *hindrance of Evaporation*, either when the ſubſtance of the Body is not emptyed, either by reaſon of the conſtipation of the pores and thickneſs of the Skin, which a Bath of ſweet water wil take away; or the weakneſs of Native heat whether acquired by a cold diſtemper, or idleneſs, or by reaſon of the tenacity, fixt and firme concretion of the ſubſtantifical moiſture, which doth not eaſily yeild to the gentle and pleaſing heat that feeds upon it.

There *is another from the not perceiving of the ſucking*, which, 1. by Diſeaſes of the brain in which either the Nerves of the ſixth pair are affected, or the Animal ſpirits are not generated, or their influx is hindred, or which happens in acute Feavers, they do languiſh, or the faculty, as in the Phrenitical, &c. is converted another way. The Cure ought to reſpect thoſe Diſeaſes. 2. by Diſeaſes of the Stomach it ſelf, whether they be of diſtemper, or of Compoſition, or of ſolution of unity, of

which

which we treated before. The appetite is raised by taking away the causes, partly by cooling things if a hot Cause did precede, partly by heating things, if a cold. Wormwood Wine is very much commended.

Article, III. *Of too great Appetite.*

Too great Appetite is distinguished into two Species, viz. *A Dog-like Appetite, and Bulimus.*

I. *A Dog-like Appetite is a continual insatiable desire of Eating, arising from a Vehement sense of sucking in the mouth of the stomach, afflicting sometimes with vomiting, sometimes with a loosness.*

There is no need of SIGNS, whereas they are expresst in the definition.

The CAUSE is a Vehement sense of sucking and pricking in the Orifice of the stomach, but whence it comes, is explained in the Differences.

The CURE which is timely to be administred, least the sick fal either into a custome of vomiting, or into the Cœliacal passion, or into a dropsie, doth respect. 1. The hunger it self, which is allayed either with the Use of Fat things; or with the Yolks of Egs hardened in Water, or what is best with Wine. 2. The Causes, of which we wil treat in the Differences.

The *Differences* are taken from the Causes urging the Suckings.

I. *One is from the too great want of nourishment in the Body*, or by Reason of worms feeding on the Child, which shew themselves by biting, and they are cast forth by the use of Hiera Picra; or by reason of too great Evacuations both sensible and insensible, by the habit of the Body, by Reason of too great a heat of the moisture, to which conduceth much, the tenuity of the Humors, and thinness of bodies, Laxness of pores, &c. And then sweats do molest; The Cure is to be turned to the Particular Diseases. Or by reason of the long use of Detersive Nourishment, as Figs, Lobsters, &c.

II. *There is another from cold, acid, and more austere Humors*, wrinkling the Orifice of the Stomach, compressing and pulling it: as are acid Flegm, and Melancholly poured into the Stomach, and then the signs of a cold distemper are present; amongst purger Hiera Picra is good, as also *Zacutus* his Wine, Lib. Ult. Hist. Prax. ca. 2. n. 9.

II. *Bulimus is a great Appetite, Periodical, which aftentimes ends in a Nauseousness with Faintings away, and loss of strength.*

The *Signs* are explained in the Definition.

The *Cause* is doubted of by Physitians: yet most do hold that tis a cold distemper of the Stomach, whereupon tis wont often to happen to those that make long Journeys through deep snow.

There is no Cure, if it happen in Chronical Diseases, sometimes after Feavers and other Diseases it threatens a relapse. It respects, 1. The time of the fit, when the swouning happens, in which we must use frictions and revivers, as the smel of Wine, Vinegar, &c. 2. The time out of the fit, in which after the sick hath recollected himself, meats of good juyces must be ministred, bread dipt in Wine, &c. And by external means the heat must be restored to the Stomach.

Article, IV. *Of a Depraved Appetite, or Pica.*

Pica, which is also Citta and Malacia, (is so called from the bird Pie which is sick of this disease) *it is an absurd appetite to a strange substance liquid or solid, beside the ature or essence of nourishment, from a sad sense of sucking, and corrupt judgment not discerning things fit, or unfit for eating, from a Vitious Excrement imbibed in the coats, by a peculiar propriety of substance molesting the mouth of the Stomach.*

The SIGNS are manifest, because they desire meats of Vitious qualities: there preceded excess, indigestion, use of meats and drinks of evil qualities, a suppression of the Courses, &c.

The CAUSE is a sad sense of sucking Molesting, which is Caused by the matter impacted in the Coats of the Stomach, either acting by its whol substance, or by a manifest quality, arising from an evil Course of Diet, or sent from some other part, as from the womb, whereupon tis familiar to Childing Women about the second and third Month: but there is wont at the beginning while the Causes do alter, to be raised a desire of contrary things; but when by long custome there is a familiarity contracted, things like are desired.

The CURE must be haistened, least a Cacochymy or Dropsie be caused.

The peccant matter is most commodiously

cast

caſt forth by vomit, which in Childing Women muſt be Cauſed by thoſe which are more gentle. The Stomach may be ſtrengthened with water of Cinnamon, of Orange Pils, magiſtral of Corals, &c.

Article, V. *Of too great Thirſt.*

Too great thirſt, or Poludipſia, *is a greater and oftner deſire of accuſtomary drink, by reaſon of a ſad ſence of ſucking in the Mouth of the ſtomach, ariſing from the defect of moiſt nouriſhment, and the alteration of its proper Humidity.*

The SIGNS of the Symptom are manifeſt of themſelves.

The CAUSE is a ſad ſenſe of ſucking which the want of moiſture, and the plenty of heat have raiſed: but whence that proceeds, ſhal be explained in the Differences.

The CURE doth reſpect, 1. The too urgent Symptom, which is mitigated by Cryſtal or Coral held in the Mouth, cold water corrected with a little Vinegar, the juyce of live Crabs with water of violets and Houſleek, ſprinkled; with a little Niter, a Lohoc compounded of the Mucilage of the Seeds of fleawort and quinces, of each half an ounce; Sugar Candy of violets pouderd, Starch, Tragacanth, of each one dram; Syrup of violets as much as is ſufficient. With ſpring Water boyled with Sugar Candy, adding a Pome Citron cut in two, &c. II. The Cauſes of which ſhal be treated in the Differences.

The *Differences are taken from the Cauſes.*

I. *One is from the defect of the dewiſh ſubſtance of the Stomach,* which is *known* from the preceding Cauſes, abſence of loathing, &c. it ariſeth from thoſe things which can waſt moiſture, as are Labors, watchings, faſtings, immoderate Evacuations, &c. The Cure is to be perfected with meat rather than with drink, water which cauſeth vomiting and a looſneſs in them, is to be ſhunned: the beginning muſt be taken from moiſtning, which a gentle cooling ought to follow.

Another from the diſſipation of the moiſture in the Stomach through heat, which is known by the loathing of meat, roughneſs of the Jawes, bitter, Salt nitrous taſt. It ariſeth, 1. Either of it ſelf, or from external things, the hot Aire, ſharp, Salt meats, hot Potions, Vehement Motion of the Tongue, poyſons; al which ought to be removed. Or from internal Cauſes, as chiefly from an inequal diſtemper of the Stomach, where we muſt empty; and moiſten with an Emulſion of the four greater cold Seeds. 2. Or from other Diſeaſes; viz. A Feaver, heat of the Lungs, a dropſie; &c. The Cure of which muſt be fetcht from their proper places.

II. There *is another without a Feaver,* which Choler, or Salt Flegm do Cauſe.

Another with a Feaver, in the beginning of whoſe fit no drink is to be adminiſtred, leſt a greater heat be kindled, but the thirſt muſt be deluded by things held in the Mouth; in the Vigor we muſt uſe moiſtening and cooling *Gargariſms*; in the declination, unleſs the Patient wil abſtain, drink may be allowed, that ſweats may flow more plentifully.

Article, VI. *Of the hurt of Concoction or Chylification.*

The hurt of Concoction, is a fault of the concocting faculty in its action about the nouriſhment, by which it comes to paſs, that it either doth not concoct at al, or ſlowly, or depravedly.

It contains therefore three things under it, Bradupepſy, Apepſy, and *Dyſpepſy.*

I. *Bradupepſy, is a ſlow and weak concoction,* when the meat is left either half crude, or is not diſgected but in a long time, by reaſon of the fruſtration of the faculty, and weakneſs of heat, chiefly proceeding from a cold diſtemper.

The SIGNS are, a diſtention of the ſtomach by winde after a ful Concoction of the meat, the ſent of the meats riſing to the Palate many hours after, ſour belchings, Flegmatick vomitings, ſtooles moiſt and crude, the Concoction of meats eaſie to be concocted, ſcarce done in a long time. The *Adæquate cauſe* is the fruſtration of the Concocting faculty, which either is hindred by ſome Organical Diſeaſe, as a Tumor, inflations, &c. Or is weakned by a cold diſtemper induced by thoſe things, which either do cool, or ſuffocate, or diſſipate, or withdraw the nouriſhment, or tis hindred by an external error, which either Excrements heaped up in the ſtomach, or ſent from ſome other part do Cauſe; or nouriſhments not regularly taken, in juſt quantity, quality, time and order; or ſleep.

The CURE, unleſs the griefe proceed from an external error; is principally to be directed againſt a cold diſtemper; for this in-

wardly, are good, the tincture of amber, magistral of corals, Elixir proprietatis, Diacorum nobile, the fruit of Eglantine condite, extract of calamus aromaticus, of Juniper berries, of Zedoary, spirits of vitriol if crosse humors are presumed to be in the stomach, but 'tis then worst of al when the heat of the stomach is Languishing, for this, the blewish or green spirit of wormwood, *Mynsichtus* his elixir of vitriol, syrup of Juniper berries, conserve of roses vitriolate, the phylosophical salt compounded of salt of niter prepared and molten, gemmæ, each two drams; of wormwood, blessed thistle, tamarisk, each one dram; of galangal, cubebs, mace, each two scruples; *Birckmannus* his pouder of the root of cuckowpint prepared in *Quercetans* Pharmacopea. The distilled oyl of orange pils, of wormwood, *Bartoletus* his potable oyl, of nutmegs, cinamon, mastick, &c. outwardly do best agree, *Cratoes* stomach oyl, tacamahac, balsome of Peru, *Hartmans* stomach scutum, *Stokerus* cerote of ladanum, &c.

II. *Apepsy, is the concoction of nourishment in the stomach quite abolisht*, proceeding from the privation of its alterative faculty, by which it comes to pass, that it descends crude into the guts.

The SIGNS of it are, the precedent causes, belchings after the space of 6. or 7. hours, savoring of the nature and quallities of the meats, the casting up of them inconcocted, or voiding them so by stoole, &c.

The CAUSES are stronger than those, which were alledged in a Bradypepsy.

The CURE also ought to be fetcht from thence, the arcanum of tartar is commended, if ten grains of it be taken every day in broath.

III. *A dispepsie or diaphthora, is a corruption of the meat, and a change of it into a strange qualitie, by reason of the frustration of the concocting faculty of the stomach.*

The SIGNS of this are, nidorous belchings, adust, acid, fat, stinkings, which are often attended with rumblings of the belly, murmurs, pains bitings, vomitings, very stinking stooles, impatiency of hunger, anxiety, &c.

The CAUSE is the distemper of the stomach, and that oftentimes hot, which burns up, corrupts, and putrefies the meat; but every thing corrupted, according to its nature puts on a strange quallity: hence it is, that things smel so diversly. Chiefly the nidorous coruption is the off-spring of heat, which ariseth from hot diseases, nourishments of the same quality, and easily corrupted, as milke, fishes, mushrums, fading fruites, the sowr corruption proceeds from cold.

The CURE is to be turned to the distemper, the hot one chiefly, of which we spake before; here the Spirit of sorrel, and *Quercetans* syrupe of corals chalenge the first place.

Article. VII. *Of the Hickopps.*

The Hickop is a convulsive motion of the stomach, consisting of the distension and dilatation of the fibres of its upper part, by which the expulsive faculty being irritated, doth endeavour to cast forth things hurtful that are fixt in the coats of the stomach, especially of the mouth of it and gullet, with a noise and vehement contorsion.

There is no need to reckon up the signs, 'tis heard by the standers by.

The CAUSE is matter residing sometimes in the whole stomach, but pulling the stomach either by an inimicous quallity, or by compressing it.

There is no Cure, if a Dilerium happen with it, becaus it is an argument, that either acrid vapors are raised up to the head from the stomach inflamedor that the brain being inflamed, the evil is comunicated with the nerves of the orifice of the stomach, if it arise in a deepe sleepe, in swouning fits, or convulsions. The cure is doubtful, if fainting be feared with it, if it befal old people purged above measure, if it arise from an inflamation of the liver; if it invade after vomiting, becaus it is a signe the stomach or braine suffers no smal inflamation; if it happen in sincere vomiting, becaus there is signified some great burning of the parts about the stomach; if it proceed from the Ileon, becaus tis an argument that some nervous part wch hath consent with the brain is affected, if it be joyned with losse of speech. It respects, 1. The symptom it self, which is restrained by things stupefying, as of *philonium romanum* one scruple; saffron, cinamon, each two grains; *Laudanum Opiate* one grain, with oyl of sage as much as is sufficient. 2. The causes, concerning which consult with the differences.

The differences are taken from the causes and other things.

I. *One is from external causes*, as refrigeration, either by reason of the ayre, or cold drinke, where holding of the breath, and anointiag of the back and stomach with hot

oyls

oyls doth help. From ſharp nouriſhments or medicines, where Ptiſſan drink, or oyl of ſweet almonds is a remedy from too much emptying, which is followed with a drineſs and corrugation of the ſtomach, where an imulſion of the four ſeeds with temperate anolepticks takes place. From corrupt meats, wch aloes wil purge forth; from poyſon taken, which treacle reſiſts.

Another is from internal cauſes, as are. 1. hot and acrid humors, which require a vomit or gentle purge, by the uſe of terra ſigillata, or bole armonick, they grow more mild. 2. Cold humors, which muſt be prepared and emptied; the extract of caſtor is of force, oxymel of ſquils, Elixir propriates; and ſneezing takes its place. 3. Winde, which is diſcuſſed by a nodulus compounded of dil and poppy ſeeds, by oyl of Cumming ſeed, or by the impoſition of oake aſhes ſprinkled with mallego wine, aplaiſter of bay berries. 4. Matter which is wont to be in an inflamation of the liver. 5. internal diſeaſes, as an inflamation of the liver, wombe, ſtomach, brain, or ſome other part; alſo a feaver, in which obſerve, in the begining of the feaver it ought to be taken away by gentle evacuation; in the ſtate we ought not to feare, becauſe tis a ſigne there wil be a criſis by vomiting; in the augment it ſignifies either that the humor flowes to the cavity of the ſtomach, and then the hickops is ſildomer, and by taking of meat, or a gentle medicine 'tis layd: or into the ſubſtance of the ſtomach, and then the hickops is ſo frequent, that by reaſon of it the patient ſeems to be choaked; it muſt be ſtopt by ſtupefactives, if by reaſon of the vehemency of the feaver we may not purge.

Article, 8. *Of belching and rumbling.*

I. *Belching is a violent breaking forth with noiſe of wind reſiding in the Stomach, through the upper parts.*

There is no need of ſigns to diſcover it, for it is manifeſt.

The CURE muſt not be neglected, for if they be frequent and much, they ſignify the vehemency of the cauſe, and trouble digeſtion; if they be before meat they diſpoſe to the colick, if after, to the dropſy. Yet belching is good if it be ſupervenient to an aſthma; if it happen in a long looſneſs, when as it was not before, becauſe it is an argument that there is againe ſome concoction. It reſpects principally the cauſe, of which elſewhere.

The CAUSE, is wind generated in the ſtomach, or ſent thither from other parts eſpecially from the hypochondria.

As concerning the differences 'tis divided threefold.

I. *One is moderate* which (becauſe it voids by the mouth windy excrements) *is not to be ſtopped*: another frequent, which is to be taken away.

II. *Another is acid*, which is either from meats of hard concoction, or from a cold diſtemper of the ſtomach, and then honey, ſugar and other things turne ſowr. If it continue long it threatens a dropſy or lientery. The ſick are not eaſily ſubject to a pluriſy. The cure is to be turned to the diſtemper.

III. *Another is Nidorous*, which is either from the meats ſending ſuch a vapor from them as are radiſhes, onions, fryed meat, fryed eggs; or from the too much heat of the ſtomach. So corrupting the meats, whether it be ſo, either eſſentially or by conſent.

IV. *There is another inſipid*, which proceeds either from flatulent meats, or from the plenty of it; and if a long time after the takeing of the meat it ſavour of the ſame, it ſignifies a great weakneſs of chylification.

II. *Rumbling is a ſound of the belly cauſed by humors or wind, running up and down the Stomach or gutts.*

It hath the ſame cauſes; the differences are alotted, both according to the diverſity of the ſound, whoſe cauſe is plenty of excrement, and the largneſs of the paſſages; and the nature of the part in which it is conteined. For it is dry and thin which makes an acute ſound; moiſt and thick which makes a grave or baſe. It is either in the thick guts, from whence the graver ſounds break forth; or in the ſmal gutts, from whence the clearer and acuter: and if there be moiſture with it, there ariſeth a ſmal murmuring, which is the fore-runner of a moiſt ſtoole at hand. It is either in the cavity, or within the coats: nay there hath been knowen a wind that aſcended to the throat, making ſhew as if it would ſuffocate, and after an hours ſpace hath returned to the ſtomach.

Article, IX. *Of nauſeouſneſs and Vomiting.*

I. *Nauſeouſneſs is a vaine deſire to vomit with a ſad moleſtation, heat and anxiety, by*

which the ſtomach, contracting the lower parts, and dilating the upper, doth endeavour to caſt forth thoſe things which are offenſive to it; but by reaſon of weakneſs, or the ſcarceneſs or contumacy of the matter, it voids nothing by the mouth but a thin watry humor.

There is no need of *Signs*, the cauſes are declared in the definition, and differ only gradually, from thoſe which cauſe vomiting; therefore we ſhal treat of them, when we do of vomiting.

II. *Vomiting, is a ſenſible and palpable caſting up with violence through the upper parts, the matter conteined in the capacity of the ſtomach.*

There *is no need of ſigns*, when as the ſymptome is manifeſt. But the buſineſs is not of that which is Critical, which happens as the work of nature for the benefit of the ſick, and either leſſens, or takes away the matter: but of that which is ſymptomatical, which is foretold, by a paine in the head cauſed by conſent, darkeneſs appearing before the eyes, rigour, coldneſs of the lower parts of the hypochondria moveing of the lower lippe, the flowing forth of much drivel, &c.

The cauſe is whatſoever can offend the upper orifice of a weak ſtomach, and irritate it to expulſion, either by its plenty, or biting quality, or by the nature and diſpoſition of its ſubſtance.

The Cure is difficult, if al colours be vomited becauſe they ſignify dangerous affections in the body, if that vomited be of a leek color or black, becauſe it indicates an exceſſive heat in the veins, and great corruption of the humors, unleſs it proceed either from the crudities of ſome meats, or be critical. 'Tis paſt hopes; if the matter be livid, and ſmel ſtrong, becauſe it denotes putrefaction with an extinction of the native heat: If with it, there be other matter which from the corruption in the body hath contracted blackneſs, it being by nature not black, it relates to, I. The urgent ſymptome it ſelf, which is to be ſtopped, 1. By revellers, whether they be ſtrong and ſharp Clyſters, or hot things applyed to the extream parts, 2. By things that compreſs the motion of the expulſive faculty, and ſtrengthen the Stomach. Inwardly are commended, *Zacutus* his Pills, lib. 9. hiſt. prax. cap. 1. num. 4. Lignum aloes poudered and given with the ſyrup of the ſharp juice of Citrons. The crude juice of quinces taken a ſpooneful, laudanum opiate, a vomit. Outwardly a plaiſter of treacle, *Zacutus* his cataplaſme, an epithem of the decoction of wormwood, mint, made in ſmiths water.

The differences are taken chiefly from the cauſes.

I. *One is from external cauſes*, as are meats either taken into great quantity, or offenſive, by their hurtful qualities, vomiting medicines (then are comended new treacle, ſpirits of wine) imoderate drinking and drunkenneſs, vehement motions after meat, unaccuſtomed going to Sea, violent coughing, the phanſie and beholding of things loathſom, blows on the body, a wound of the ſkul, poyſon taken, &c.

Another is from internal cauſes, either diſeaſes, or humors, of which ſhal be treated in the following difference.

II. *Another is from diſeaſes infeſting the ſtomach, as are, Ulcers, tumors, ſtraitneſs and ſmallneſs, the ſtoppage of the lower orifice, which muſt be conſiderd in the cure.*

Another is from humors, which are either bred there, and then there was ſome fault in the dyet, with a continual nauſeouſneſs; or flow from ſome other part, and then there muſt be reſpect had to thoſe parts; or they lie in the cavity of the ſtomach, and then they are caſt up with a little ſtraining, there is a diſtenſion and anxiety after meat, and vomitings when they have taken no meat: or they adhere to the coats, and then they vomit not, unleſs upon taking of meat nauſeouſneſs is very troubleſome. Theſe humors are, 1. The *Chyle*, which muſt be ſuddenly remedied leſt an atrophy ſteale upon us; this happens in an ulcer of the Stomach. 2. *Excrements*, which are caſt upwards in the *Iliaca paſſio*, as alſo Glyſters. 3. *Blood*, which is caſt up either by reaſon of the cutting of ſome member, or after the ſuppreſſion of ſome evacuation of blood: where it muſt be diſſolved leſt it putrefy, with oxymel in which a dane-wort root hath been boyled, afterwards it muſt be emptied, at laſt it muſt be ſtopped, with two ounces of the water of the greater nettle, & ſpirit of vitriol as much as is ſufficient for a gratful ſharpneſs, wth the eſſence of *crocus Martis*, & gelly of Quinces, with the old conſerve of roſes given with gum tragacanth; Or by reaſon of the opening of the veſſels, where the ſame means muſt be uſed. Syrup of *purſlane* with terra ſigillata is powerful in aſtriction. 4. *Chol*or ſometimes comes theither, if the channel of choler be in-

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ſerted into the Stomach; and then the nature of the humor caſt up muſt be conſidered: vomiting troubles them moſt when they are faſting: 'tis ſomtimes happily ſtayed by opening the *Salvatella*, if we may credit *Zacutus*. 5. *Flegm, melancholly, matter, worms, ſtones, &c.* which are beſt of all diſcovered by their proper ſigns.

Article, X. *Of Choler.*

Choler, whether it come *apo tes choles*, that is from yellow choler, from which it moſt frequently ariſeth; or *apo ton cholodon*, that is from the gutts, *is twofold, moiſt, and dry.*

I. *Moiſt choler*, which alſo *is the true, is a continuall and imoderate caſting off of an evil humor, with great perturbation and violence, both through the upper and lower parts, ariſing from the violent irritation of the expulſive faculty.*

The ſigns are, often voiding of cholerick humors, a great paine in the belly and bowels, paine at the heart, thirſt, a pulſe ſmal and frequent, to which do oftentimes ſucceed, faintings, and coldneſs in the extreame parts.

The Cauſe is a ſharp and corrupt matter, whether ariſing from meats bad in themſelves, as the eggs of the barbel fiſh, muſhrums, melons, cowcumbers, plums, fat things, herbs, leeks, onions &c. or bred elſewhere and ſent to the ſtomach, as ſhal be ſaid in the differences.

The cure muſt be haſtend by reaſon of the acuteneſs of the diſeaſe; yet there are ſome, in whom this cholerick paſſion & a lask at certain periods, doth empty al the ſuperfluities of their bodies. *It reſpects*, 1. *The furthering* of either of the *evacuations*, if one be too much, the other to little. 2. *A tempring of the humors.* 3. *A ſtrengthning of the part.* 4. *A reſtoring of the ſtrength and ſpirits*, too which end *wine* is good, if there be no feaver. 5. *A mitigation of the Symptomes*, of which in the differences.

As for the differences.

There is one, *when the matter that irritates is conteined in the Stomach, which is known by this*, that there is preſent, nauſeouſneſs, a ſtraitneſs, knawing and pain of the ſtomach; *It ariſeth*, from ſtrong purging medicines. Concerning the *Cure* obſerve. 1. That the flux muſt not be ſtopped, if the evacuation be plentiful, and the ſtrength be not impaired. 2. Where the irritation is great, and the evacuation ſmal, vomiting muſt be furthered by gentle vomiters, and purging by benigne purgers and laxatives. 3. Where the evacuation is great, and irritation ſmal, we muſt uſe aſtringents and ſtrengtheners together, 4. If vomiting be exceſſive, we muſt move by ſtoole, if a looſneſs be too much, we muſt act with vomits compoſed *of whey* with ſyrup of roſes, 5. *Inwardly crocus martis* rightly prepared doth ſtop it beſt of al. The decoction *of Cloves, Maſtich, and Red Roſes*, made in red wine, *Laudanum opiate* : *the ſpunge* that is wont to grow on ſawallows given four grains weight in red wine. *Outwardly* a Sea ſpunge boyled ſtrongly in vinegar, and laid upon the ſtomach.

Another is, *when the matter flows from elſewhere*, as from the liver, pancreas, gutts, meſentery, into the ſtomach. *'Tis known* by this, that for the moſt part there is preſent a malignant feaver, and convulſins trouble them: the matter offending then is, *Choler like yolks of eggs, yellow, aduſt, or ſalt, nitrous, and corrupt.* In the *Cure*, 1. The courſe of the matter flowing thither is not preſently to be ſtopped. 2. If it flow too much, it muſt be diverted by medicines either to the skin, or to the paſſages of urine, or it muſt be called to the outward parts, by frictions, ligatures and the like. 3. It muſt be qualified and the parts ſtrengthened. *Inwardly Chriſtal* is good, given half a dram weight. *Outwardly* epithems made of the juice of *Endive, Purſlane*, with barly flower. In courſe of *diet* bread dipt in the juice pomegranates is good, &c.

II. *Dry choler*, which alſo is *the baſtard, is a voiding of a flatulent ſpirit through the upper and lower parts, with a puffing up of the belly, with noiſe, and a pain of the loynes & ſides.*

The SIGNS *and immediate cauſe*, are expreſt in the definition.

The CURE, which alſo muſt be haſtened, *doth reſpect.* 1. *The bringing forth* and diſcuſſing *that flatulent ſpirit* where Clyſters and carminative decoctions take place. 2. A *Removal of the Cauſe* from which it ariſeth, of which in the differences.

As concerning the *Differences.*

One is *From the fiery heat of the ſtomach corrupting the meats*, and converting them into a nidorous matter and ſharp vapors, in which the cure muſt be turned againſt a hot diſtemper, and outwardly the boyling hot hypochondries muſt be cooled.

Another is from *ſharp and windy nouriſhment*

ments, as Raddish, Rocket Seed, fryed Egs, and the like: and then the matter must be emptyed, and give diarrion Piperion.

Another is *from Black-choler* and other aduſt and Salt Humors lurking about the Hypochondries, and growing hot by the mixture of another Humor; as we ſee Salts and ſaline ſpirits being mixt with acrid ſpirits, do yeild a great quantity of ſpirits.

Title, III. *Of the Affects of the Guts.*

Chap. I. *Of the Diſeaſes of the Guts.*

THe Diſeaſes of the Guts are Cheifly, *Inflamation*, *Straitneſs*, *Wormes*, *Rupture*, *Wounds*, *Ulcers*, and the affects *of the right Gut.*

Article, I. *Of the Inflamation of the Guts.*

An inflamation of the Guts is a ſwelling of them ariſing from blood out of its veſſels falling into them and putrefying.

The SIGNS are a fixt and diſtending pain, the perceiving of a Tumor, that the Guts may be perceived to be rowled up like the ſtrings of an inſtrument, coſtiveneſs of body, a ſtoppage of the Urin, a Feaver preſent.

The CAUSE is explained in the definition. In the Autum the blood chiefly flows thither, by reaſon of its thinneſs, becauſe the thin and moveable Humors generated in the Summer, by the inequal cold of the Autum, are driven to the center of the body.

The CURE muſt be ordered according to the rule of other inflamations, and that quickly, becauſe the evil is acute, and oftentimes turnes to a gangrene, and mortification. The cooling Medicines, which are adminiſtred for it, ought to be without aſtriction; we muſt wholy abſtain from Purgers, leſt the place affected be exaſperated.

'Tis *divided* according to the place and Cauſes.

I. One is *of it ſelf*, of which we have now treated; another from *the Navel-Rupture*, of which in its place. Another from *the Rupture of the guts*, in which the Guts ought preſently to be put back into their place. Another from *a contuſion*, in which, to thoſe things which are applyed for the inflamation muſt be added ſomwhat lenifying and concocting.

II. One is in the *ſmal guts*, which is moſt common, in which a diſtention of the ſtomach, ſtraitneſs of breathing, daily vomitings, do moleſt, that they are not able to contain their drink, the pain and Torture tends moſt to the upward parts. Another in the *great Guts*, in which the pain reaches more to the Hypochondries, there is a heavineſs in the Loins, and vomiting is not ſo continual.

Article, II. *Of the Straitneſs of the Guts.*

The Straitneſs of the Guts is known cheifly by this, that the Excrements of the Belly are not rightly caſt forth by ſtoole.

It hath its *Differences* according to the Nature of the Cauſes.

I. One is from *External things that are aſtringent and drying*, as quinces, and other things, which is known by the relation of the Patient and ſtanders by. In the Cure are required things moiſtening and mollifying, fat things, &c.

II. Another is from *the Excrements hardned*, obſtructing them, which *is known* by this, that there is no Tumor, pain, yet the Excrements are not caſt forth. It *ariſeth* at that place eſpecially where the ſmal and great Guts end, either from too dry matter, and drink to much diluted, or from the heat of the neighbouring parts ſucking up the moiſture.

'Tis *Cured* by Mollifiers, by *a bath of ſweet Water* with emollient Herbs, *by the Greaſe of a* roſted *Gooſe* caſt in by a Clyſter, by blowing up the Guts with a Pair of bellows, which muſt be followed with a ſtrong Clyſter with half a dram of Sal gemæ.

III. Another is from *Inflamation*, of which we ſpake in the former Chapter.

IV. Another from the growing together of *the Guts* which is incurable.

V. Another from a Rupture or worms, of which ſhal be ſpoken hereafter.

VI. Another from *thick Flegm*, which *is known* by this, that Cauſes generating that went before; crudities, flowneſs of the belly to ſtoole, and much wind abound. It *ariſeth* from the fault of the Diet, and the feeble heat of

of the Guts: and if it ſtick there long, it grows ſo thick that it wholly ſtops up the Guts. *It is Cured* by things that cut flegm, and ſharp Clyſters, concerning which conſult with the Chapter of the Cholick.

Article, III. *Of Worms.*

Worms are ſmal creatures wholly preternatural, generated in the guts out of a thick clammy and viſcous Humor, having in it the principal of life in its kind, by a vivid heat raiſed up by putrefaction, which do hinder the actions of the Guts.

The common ſigns are many, to wit, a ſtink in the mouth, diſturbed ſleep, with skipping, trembling, noiſe and gnaſhing of the Teeth, Itching and often rubbing of the noſe; a pale face, ſomtimes by fits ruddy, hollow and dark Eyes, the white of which is changed into a Saffron or Pale, running of drivel from the Mouth more than uſual, a diſtenſion and puffing up of the belly with murmurs, a knawing in the belly, & that exaſperated in the time of hunger, ſomtimes a looſneſs, vomiting, falling-ſickneſs. If in the morning while Children are faſting, cold water be ſprinkled on the Mouth of the ſtomach, they wil al gather together, and this ſign hath moſt weight with it, if the Age of the Child wil bear with it.

The CAUSE is a viſcous and Flegmatick Humor which ariſeth from much eating, meats that eaſily corrupt, & generate a thick juyce, as cheeſe, Milk, pulſe, decaying fruits, ſweet things, ſugard things, honyed things, &c. It hath ſomthing analogous to ſeed endued with a formative faculty, and a vivifying diſcretion, which doth diſpoſe the matter to receive this, and no other form of worm, and being diſpoſed doth Cloath it with that from, as we ſee peculiar worms do proceed out of wormwood, Sea Salt, a Horſe, a calfe, Mulberry leaves, Cheeſe, Honey.

The CURE, which is *Difficult*, if there be many, great ones, red and of divers colors, living; if in the beginning of Feavers and acute Diſeaſes, as alſo in the augment, by the malignity of the Diſeaſe they be Symptomatically voided, *Is Performed*, I. By things that kil them, thoſe which are bitter, acrid, Salt, or enemies by their whol propriety, ought to be given upwards, but alwaies mixt with ſweet things, downwards premiſing ſweet things, then when they are in the loweſt places or in the right Gut: with them Oyl ought to be mixed, that they may be ſtifled in it, with cheeſe butter, which they exceedingly fear. The chiefe things that kil them are *hot*, as *Coralline* given in pouder one dram, *Wormſeed, centory the leſs, peach flowers, Myrrh, Aloes, Zedoary, the Juyce of Rhadiſh, and creſſes; Cold, hearts horne burnt, Purſlane* Water, juyce of *Endive, Graſs* Water, with a little Vinegar and Sugar. Of Internal *Compoſitions* the Pouder of Dr. *Mencelius* my wives Grandfather, excels; 'tis compounded of *the Flowers of Centory the leſs, tanſie, St. Johns wort, each two drams; of the flowers of Wormwood, Savine, Peaches, of each one dram and an half; of the Roots of white dittander, gentian, aſarabacca, of each one dram; of red Corals prepared, burnt harts horn prepared, of each two ſcruples; Seeds of Artichoke, Purſlane, citron, cummin, Seſeli, Coleworts, Coriander prepared, Sorrel, of each half a dram; Choice Rhubarbe one dram; Myrrh, Saffron, of each half a dram; Scammony prepared, Trochiskes of Alhandal, of each two ſcruples; Salt of Wormwood half a ſcruple, Coralline half an ounce*: Of which you may give from one ſcruple to one dram in Cows Milk upon an empty Stomach two hours before meat. *Outwardly* is commended the cerote compounded of *Myrrh, Saffron, Liver colord Aloes*, of each as much as is ſufficient, with Roſe Vineger and an Oxe Gal, and applied both to the Mouth of the Stomach, and to the back; ſee more amongſt Authors. II. *By things that drive them forth*, which are, *melted butter, great quantity of Oyl, a Bath of ſweet Milk fuming hot*, if the Worms be yet alive *Diaturbith with Rhubarb, Ruffus* Pils, and *de Tribus Solutivis* if they be dead.

The *Difference* is taken from their figure.

I. Some are *ſmooth* or round, in which the knawing of the Belly is more vehement, a dry cough more frequent, the hickops, nauſeouſneſs, loathing of meat, faintings of the heart, troubled dreams with trembling, riſing up, crying out, motion of the Jaws, &c. Clyſters are not convenient for theſe, unleſs they be dead.

II. Others are *broad*, in which the Excrements are not unlike to gourd Seeds, there is an inſatiable deſire of meat, and a quick caſting forth of the Body of that which is taken, a greater leanneſs and waſting of the Body, a pain ſomtimes in the right ſide, ſomtimes in the left. *Fearn*, or its water is good againſt them, *Walnuts, Treacle*, with Vinegar or the Juyce of

of Lemons. Concerning the *broad worm*, see *Tulpius* in his observations.

III. Others are called *Ascarides*, in which there is a continual pain, a most troublesome itching about the Fundament, as if it were ful of Aunts, with a heavinesse in the back, continual Motions to stool, moth-like worms are every where mixt with the Excrements of the Belly, which smel very strong, &c.

Article, IV. *Of the Rupture of the Guts.*

A Rupture of the Guts, is a falling down of the Guts out of their place.

'Tis called by the Greeks *Kele*, by the Latines otherwise, *Ramix* and *Ruptura*.

The SIGNS are a Tumor which somtimes encreaseth, somtimes decreaseth, according as a greater part of it it fals down, or is filled with wind or Excrement, there is no pain, unless by chance the Excrements be fallen thither. The Patient being prest down or laid on his back the guts slide back into the belly, and that with a murmur, &c.

The CAUSES are those things which can Relax or break the process derived from the Peritonæum, as shal be said in the Differences.

The CURE is not *to be neglected*, both because that thin and Nervous Membrane cannot easily be united, and because somtimes the Patient his Guts being inflamed is brought into danger of his life, and the Guts inflamed do mortefie. *It respects*, 1. *The Replacing of the Guts*, which if *they be swelled with wind*, as the rumbling in the Guts and breaking of wind do declare, it must be done by discussives: if they swel with *Excrements hardned*, then both with Emollient Clysters and Cataplasmes and Fomentations. If *with Flegmatick matter* it must by little and little be emptyed by Clysters and suppositories, and be attenuated by internal incisive means: if there availe nothing, we must flie *to Chirurgery* (concerning which consult with Authors.) 2. *The retaining of them in their place*; here are proper, *Horse Tongue*, which is most excellent, the pouder of *Mouse-Eare* given with meats, *Through wax*, *Rupture wort*. *The Ashes of a sucking hare* given to drink in red Wine. *The Seed of Flix weed*, *the plant fern* pouderd and given, each half a dram,

The *Differences* are taken from the Causes and places into which they fal.

I. One is from *a Rupture of the Peritonæum*, which *is known* by this, that a Tumor is suddainly raised, and also is quickly increased; the Gut fals down to the very bottome. *It ariseth* from violent Causes, fals, straining to cast forth the Child, or the Excrements of the Belly, holding of the breath, straining of the voice, wounds of the Peritonæum, &c. In *the Cure* a Ligature being applied, shal be given inwardly one spoonful *of the essence of the greater comfrey*, with two drops of *the balsome of Sal Gemmæ*. *Outwardly* must be applyed *Villanovanus* his Plaister of a *Rams* Skin. *Mynsichtus* Armam. p. 364. And the same Authors *Unguent against a Rupture*. p. 352. *The fat of a Hedg-Hog*, concerning which see *Hartman*. If these do no good, seek for help from Chirurgery, (of which see *Platerus*)

Another is from *the Relaxation of the Peritonæum*, which *is known* by this, that the Tumor grows by little and little, and the Gut doth not descend to the very bottome. *It ariseth* both from the moisture of the Peritonæum, whence Children often fal into a rupture: and from those things which break it, if by degrees and often they assaile the Peritonæum, though not so violently.

II. There is another called *Oskeocele*, when the Guts descend into the very Cod, 'tis known by seeing. Another *Bubonocele*, when they fal down no lower than the groin: This somtimes doth very much distend the Skin, and is stretched out under it, and Causeth a great Tumor. *Both of them* is either *Enterocele*, when the Ileon Gut cheifly fal down, or *Epiplocele*, when some part of the Cal. See *Geigerus* in his Kelegraphy. Hither belongs *Exomphalos* or *Omphalocele*; when the Navel either Relaxt or broke struts forth somtimes the bigness of a nut, somtimes of an Apple; nay somtimes there is a Tumor raised like a Bag. If it be *lately*, first of al foment it with a Decoction *of tree Mosse*, *self Heal*, made in astringent Wine; afterwards lay *a Cataplasme* of Plantane and Lentils. If it *be Old*, after the like Fomentations, tis Cured with the Oyntment *of Mushrums*, *of Nuts* outwardly applied with convenient ligature, inwardly with the essence of *the greater comfrey* with *the Arcanum of Sal Gemmæ*.

Article,

Article, V. *Of the falling down of the Fundament, and of the wounds and Ulcers of the Guts.*

I. *The falling down of the Fundament, is a hanging forth of the outer part of the right Gut.*

There is no need of SIGNS. The CAUSES shall be spoke of in the Differences.

The CURE requireth. I. *A putting up of the Fundament fallen down,* which is performed gently with the Hand, premising a Fomentation of emollient and moistning things if it be swelled. II. *The retaining of it being reduced to its place,* either by a stringent Decoctions, or by pouders, of Frankincense, mastick, &c. *Inwardly* is comended the Decoction *of the Root of wild self-heal* being drunk. *Outwardly* the Ashes *of beetles,* of sheeps dung strowed upon the Gut.

The *Differences* are taken from the Causes. 1. Either it is *from great straining,* which is *Either* in forcing out the Excrements, and then the Belly must be kept loose, *or* in labour. 2. Or it is *from a great irritation,* which afflicts *either* in a dysentery or tenesmus, against which the Cure must be directed; *or* from the weakness of the Muscles, which are wont to draw back the Fundament thrust forth, after the emptying of the Belly; *or* by reason of the often falling down of the Fundament, *or* by reason of some cold, and then the Nerves must be strengthned and the cold distemper be corrected. 3. Or *from a Resolution either* by reason of a contusion of the Nerves about the Region of the *Os Sacrum* or Rump bone, where things consolidating take place: *or* by reason of some Extraordinary refrigeration of them, of which we spake even now: *or* by reason of some impostumation or fistula arising about the sphincter Muscles.

II. *The wounds of the Guts* (I pass by the Perforations made by worms, wind, &c.) are either of *the smal Guts,* in which the meat and drink comes forth, Choler is cast up by vomiting, there are great pains with a Feaver, and these because the Guts have a Nervous Coat, and ful of many Vessels, are by no means or very difficultly Cured. Or *of the great Guts,* in which the Excrement comes forth, the body is bound, the which if they be long waies, and smal, they are the easier Cured; if they be large and Crosse the Guts, the harder no; waies Cured if they become blackish. See their *cure* in Practitioners.

III. Concerning *Ulcers* we shal treat in a dysentery. *Mortification* is wont somtimes to follow a Rupture, the Iliack Passion, and an Inflamation: it happens also in wounds if the Guts falling out of the Belly, be alterd by the Aire, and become blackish.

Chap. 2. *Of the* Symptomes *of the Guts.*

Article, I. *Of the Iliack Passion.*

The Symptomes of the Guts are, *The Iliack Passion, the Collick, costiveness of Body, and a lask.*

The Iliack passion is a sharp pain in the smal Guts, arising from a violent solution of continuity, with a Tumor of the belly rowled up like a bundle of strings, and so great an obstruction of the Belly, that nothing goes downward, but the Humors and Excrements are somtimes violently cast up by vomiting.

The part affected is the Ileon Gut, and the other smal Guts, for though somtimes the great Guts also may be affected; yet there is no such vehemency and danger in them, because they are looser and more ignoble.

The SIGNS are, a sence of paine in the upper guts, rouled up above the navel, most sharp, extending it selfe upwards cheifly to the right side, a puffing up and vehement distension, an eminent swelling of the upper part of the belly and smal guts, a perfect restraint of dung and winde, vaine belchings bringing no ease, murmurings of the smal guts, and cheifly of the upper; if the evil doe increase, al things are carried upwards. Hence follow vomitings, swellings under the ears, a coldness of the extream parts and whole body, with a great difficulty of breathing and stoppage of urine, &c.

The conjunct cause is a violent solution of continuity, proceeding from obstruction, corrosion, and other things (of which shal be treated in the differences) for then the expulsive faculty of the guts, rising up to expel that which is troublesome to them, and whenas it cannot move its natural way downwards, because the passages leading to the fundament are possest with a strong obstruction; or because the part

pained or inflamed cannot bear the weight or acrimony of the humors or excrements, by a converted and periſtattick motion, contracting the fibres of the guts it thruſts upwards firſt of al, things hurtful, afterwards by the violence of the motion, al things contained in the guts.

The *Cure is more hopeful* if the guts be affected but in part, if it befal children, becauſe they have a ſtrong innate heat, and humors leſs ſharp and biting. *'Tis doubtful* if it afflict old people, if a ſtrangury ſucceed, unleſs a feaver happening and diſſolving the matter, plenty of urine flow forth; If the hickops, or vomiting, or convulſion, or dotage ſucceed. *Of little hopes*, if upon vomiting up of the excrements either deafneſs or an acute feaver, or with the ſame an elevated hypochondry, ſwellings under the ears do follow. *It Reſpects.* 1. *The cauſes*, of which in the differences. 2. The *Pain* which muſt be mitigated by things emollient and anodyne. *The Blood of a bat* anointed on the hypochondries is confirmed to be of force by wonderful experience.

The Differences are taken from the cauſes.

I. One is *from external things*, as from the ayr, either too hot and drying, or cold binding up the paſſages, from deadly medicines and poiſons, from the uſe of peaſe, ſervices, quinces, medlars, &c. then the buſineſs muſt be done by vomiting.

Another is from *internal things*, of which in the following Difference.

II. One is *from diſeaſes of the neighboring bowels* which wil appeare by their proper ſigns. '2. *From a rupture*, of which we ſpake formerly. 3. *From an inflamation*, which is common, and cheifly happens in the autumn, which forces to the center the thin and movable humors that were bred in the ſummer, 'tis known and cured as was ſaid formerly. 4. *from an ulcer and other tumors*, to wit, a ſchirrus with a continual hardneſs, and a cancer, which are ſcarce curable. *They reſide* either in the *inward parts*, and then the tumor it ſelfe is viſible.

Another is from *the obſtruction of humors*, which are. 1. *Excrements hardened*, and in this al things are more milde, a long continued obſtruction of the belly went before it; the cure is ordered by things mollifying, and fat things inwardly and outwardly applied: a ſuffumigation of a calves Gal and guts boyled in broth is commended; inwardly *cream or tartar* given one dram and an half weight in broth. 2. *Humors* either thick and viſcous, or ſharp and biting, which if poſſible are to be caſt forth.

Another is from *wind*, in which gliſters of ſulfurious and ſalt things are commended.

Article. II. *Of the Chollick.*

The Collick is a pain of the Collick gut, ariſing from things that doth diſſolve its continuity.

The *Signs* are a piercing and boring ſenſe of paine in the great guts, eſpecially in the left groine, where the collick gut is narrower, carried moſt of al from the navel downwards, a puffing up and diſtenſion of the lower part of the belly, a ſuppreſſion of excrements and winde, a nauſeouſneſs, belching, vomiting, difficulty of urine, al which wil become more certain by the remembrance of things going before, and the demonſtration of things conſequent. *'Tis diſtinguiſhed from the paine of the ſtone in the kidnies* becauſe it pricks more, poſſeſſes a greater ſpace, is increaſed after meat by reaſon of the compreſſion of the ſtomach, it doth leſs afflict the back and the thighes, 'tis wandering, and there appeares no Gravil in the urine. *From that of the womb*, becauſe this ſeizeth for the moſt part upon the ſtoppage of the courſes, is communicated only to the hipps and Groins.

The cure muſt be haſtened, becauſe the pain diſſolves the ſtrength and ſpirits, and draws the principal parts into conſent. *There is little hope* if they vomit often, and cannot keep their drink, and little or nothing is voided: if it be changed into an impoſtumation of the Collick gut. If the matter which was contained in the hypochondries be poured forth and carried to the ſpina and paſs into pains of the back, and by a malignity contracted doe produce a falling ſickneſs. *'Tis performed.* 1. *By taking away of the Cauſes* (of which we ſhal treat in the defference) 2. *By mittigating of the paine* if it be too vehement, where *note* that we act moſt commodiouſly with anodine gliſters, the frequent uſe *of outward applications* may be, if ſome evacuation have preceded that *narcoticks* or ſtupefying means muſt not be uſed, neither where the ſtrength is dejected, nor in a cold cauſe. That *Compounds* are more ſafely uſed than ſimples, and that the ſame are more ſecurely caſt up into the belly, than taken by the mouth. That

we

we never be unmindful *of things appropriate*, as are the *guts of a wolfe* dryed and poudered, *the ſtones of a horſe*, *Quercetans powder* compounded of the inward coate of a hens mawe, and the white dunge of the ſame each half an ounce; the pouder of the inward skin which is found in eg-ſhels, two drams and an half; of rupture wort, cinnamon, each four ſcruples; of medlar kernels two drams; of anis and fennel ſeeds each one dram: the doſe is from half a dram to a dram at the moſt with white wine, &c. *Crato* preſcribes *for preſervation*. 1. *A gliſter* made of one pound of the decoction of ſpeedwel in hen broth, adding half a pound of mallego wine, and half a dram of mirrh. 2. Outwardly, oyl of mirrh. 3. Three hours after ſupper one ſcruple *of Zedoary* ſliced. 4. Every month in the morning before meat one ſcruple of *treacle*. See more in Practitioners.

The diffences are taken either from the part it ſelf, or from the cauſes.

I. One is *of the whol gut*, in which the pain is about both the loyns, and below the region of the ſtomach neer to the navel, which is very dangerous. Another is *of part of the Gut*, in which if *the beginning of it* be oppreſt the pain afflicts in the right loyn. *If the middle of it*, the paine ſhows it ſelf in the left. *If the end of it*, the region of the navel next to the left is pained. There is leſs danger ariſeth becauſe glyſters may have acceſs; but note, that ſometimes the loyn is affected with a pain above the navel in the hypochondries.

II. Another is from *diſeaſes*, as, 1. *Worms*, whoſe ſigns and cure ſee in its place, 2. An *inflamation of the Guts*, which was formerly deſcribed, and is increaſed by meats and drinks that are hot. 3. *From Stones*; of the cure of which elſewhere.

Another is *from humors*, I. *Thick and viſcous* ſticking between the coats of the gutts, which *is known* by this, that the pain is, as if a ſtake were driven through them, by reaſon of the violent diſtenſion of the coats in that place, neither is it aſſwaged by belching or breaking of wind, and the gut it ſelfe is corroded, which proceeds from glaſſy flame. *They ariſe* cheifly in them who are given to drunkenneſs and idleneſs, and in whom choler, which is the ſpurre of the expulſive faculty, flows not to thoſe places. In the *Cure* obſerve. 1. That ſtrong gliſters caſt in at firſt and often repeated do more hurt than good, becauſe they ſtirre the matter but bring it not forth, 2. That we uſe not for attenuation things eminently hot, leſt the matter being ſuddainly reſolved, wind be multiplyed. 3. To attenuate and diſcuſs, the *oyle of Zedoary* often given from three grains to one ſcruple is good. *White whorebound, the decoction of Speedwel*, the Oyl of *Orange pills* given four grains with wine, 4. If the paine continue, we muſt proceed to dry fomentations, by which that which was melted and attenuated, may be dryed up and diſcuſſed. 5. We muſt abſtaine from *Agrick* for feare of vomiting, which at that time is in no wiſe ſafe. 6. Where gentle purgers do not good, *the eſſence of the trochiſks of alhandal* extracted with diſtilled mallegoe ſack, and *Rulandus* his *golden ſpirit of life*, muſt be given from half an ounce to an ounce & half at the moſt. 7. we muſt wholy abſtaine from *opiates*. II. From *ſharp and cholerick humors* ſticking in the coats and veſſels, which *are knowen* by the accute pain, thirſt, bitterneſs of the mouth, watchings; though by the firſt gliſter ſome excrements be brought forth, yet afterwards nothing almoſt is emptied. There are oftentimes joined with it certain Feavers, double tertians, baſtard tertians. In the *Cure* note, 1. That the collick from thoſe cauſes is of long continuance, and is wont to afflict the patient with many relapſes. 2. That thoſe humors tranſmitted to the joints do cauſe an arthritis, to the back, pains of the back, to the nerves, a palſey. 3. That they are beſt of al caſt forth with the *extract of Rhubarb* or *Hiera picra* mixt with cooling things leſt they offend by their heat. 4. If the pains continue after evacuation, *Mallego wine* may wel be adminiſtred with oyle of ſweet almonds, 5. That warme milk may alſo be given in glyſters with honey of mercury, 6. In dyet, *the fruit of the guord* by a certain natural propiety doth oppoſe the diſeaſe.

III. Another is *from the retention of hard excrements*, of which formerly, and in which we muſt at the beginning abſtaine from giveing any purging medicines by the upward parts leſt they move the excrements.

Another is *from wind conteined in the cavity* which cannot get paſſage, which *is known* by the diſtenſion of the belly, a rumbling, murmuring, which ſhew themſelves in the bowing of the left ſide. *It ariſeth* cheifly from meats apt to produce a fermentation of the humors, as are corruptible-fruits, Grapes, new wine, new and thick drink, &c. In the *Cure* obſerve, 1. That the cure muſt be begun with anodyne and emollient glyſters. 2. If theſe profit not, Some laxative muſt be given in fat broth, of manna, Oyl of ſweet almonds, and

other things. 3. Afterwards we muſt uſe diſcuſſives. Inwardly are commended a *gliſter* made of Mallego wine and oyl of Nuts, each three ounces; aqua vitæ one ounce; the diſtilled oyles of Juniper and Rue, each two drams: apply it very hot. A mixiture *of Spirits of wine and Spirits of niter*, each half a dram or two ſcrupels given in common water warme. One ſpoonful of the tincture *of orange peels* extracted with ſpirits of wine. *Sperma ceti* with oyl of ſweet almonds. *Outwardly* gum *taccamahac and Caranna* applyed to the Navel. The *antiapoplectical* balſome with one or two grains of *Zivet*, &c.

IV. One is *exquiſite*, of which we have hitherto ſpoken.

Another *Spurious*, whoſe cauſe ſticks either in the peritoneum, or in the membranes which are ſpred over the abdomen and parts of the belly. *'Tis known* by this, that the paine is moſt greivous, and very laſting, and cannot be mitigated neither by glyſters nor medicines, nor fomentations, nor by thoſe remedies, by which the true collick pains are abated; and yet it ſucceeds to long continued feavers, and other cholerick diſeaſes, whoſe ſolution is difficult. For nature endeavoring a criſis, and the expulſion of the hurtful humor by the ſtoole, when ſhe can no where find a ready and cleare way to empty it, doth often caſt it out of the veins and bowels into the membranes, whence do ariſe pains more grievous than the former diſeaſe. 'Tis obſerved *by Fernelius* that both continuall feavers, and tertians, and more frequently quartans are terminated with theſe pains, which a long time had their exacerbations at certaine circuits, and retained the like order of fits. See concerning *this Matheus Martinus* on the diſeaſes of the Meſentery.

V. Another is *which tends to a particular palſey*, which *Palmarius* was wont to cure with a ſyrup compounded of white wine ſix ounces; Roſe water two ounces; pouder of Alarbazi or antimony prepared one dram; choice cinnamon one dram and an half; infuſed al night & ſtrained by gentle pouring it off adding of Sugar eight ounces. The doſe is from half an ounce to an ounce, after a draft of chicken broath.

Article, 3. *Of Coſtiveneſs of body.*

Coſtiveneſs of body is no caſting forth of excrements, or very little in proportion to the nouriſhment received.

There is no need *of ſigns. The cauſes* ſhal be explained in the differences. The cure is not *to be neglected*: for from thence the head is aſſaulted with vapors, the whole body grows heavy, the concoction of the ſtomach is hindred, the appetite deſtroyed, the loines grow weak (to wit the veines being burthend, and a preternatural heat cauſed in them.) Sometimes the belly *is moved* by ſneezing and coughing, ſometimes if the diſeaſed walk on the ground bare footed, &c.

The difference is taken from the excrements and guts.

I. One is *by default of the excrements*, which either *are not* by reaſon of faſting, and the uſe of meats of good juice. Or *do not ſtimulate*, either *by reaſon* they are ſmall in quantity, or *by reaſon* of the want of choler, which either is carried to other parts as in the jaundice or is not produced out of cold meats. Or *they are hard*, either by faſting and a hot habit of body, or by a continued reſtraint there, by which it comes to paſs, that they forthwith grow dry, and the veins of the meſentery do ſuck forth ſomwhat of their juice. *Or by reaſon* of groſs, tough, aſtringent meat eaten at firſt, and not moiſtned by reaſon of the too great heat of the liver and kidnies; and then there muſt be care taken of thoſe parts; we muſt act by mollefyers. *Solenanders liniment* is approved of, if the navil be anointed therewith, 'tis compounded of new oyle, of ſweet almonds, gooſe greaſe, May butter, dialthea, each two drams; Coloquintida ſixteen grains, Salt one ſcruple and half; the pouder of Simple hiera one ſcruple diagridium four grains.

II. Another is *by fault of the guts*, which either *do not feel*, either *by reaſon* of their long cuſtom, or by their ſtupidity, ſuch as is cauſed by the drowſy diſeaſe, palſy, apoplexy; *or* by reaſon of flegme adhering to their coats; of which in the chollick. Or *do not caſt it forth*, either *by reaſon* of the narrowneſs of the paſſages from the obſtruction of the guts, of which formerly; or of ſome tumor of the meſentery or bowels preſſing the guts; or from the fault of the muſcles of the belly; or from the ſtrength of the retentive faculty from the moderate dryneſs.

Article, 4. *Of a Looſeneſs.*

Point 1. *Of a Lientery, and Cœliaca.*

Fluxes of the belly are, *A Lientery, Cœliaca, Diarrhy, Dyſentery, and Hepatick flux. A Lientery is too ſudden a voiding by the ſtool, the nouriſhment in that forme in which it was received, proceeding from the fault of the retentive and expulſive faculty of the ſtomach and guts.*

The SIGNES are evident, whether you conſider the conſiſtence, or the colour, ſmel, and other qualities of the aliments taken.

The CAUSE we have laid in the definition on the faults of the retentive and expluſive faculty; of which hereafter in the differences.

The CURE *muſt be haſtened,* becauſe this ſymptome proceeds from a great proſtration of the natural heat, and a weakneſs of the tone of the ſtomach. *'Tis difficult* if it be ſupervenient to acute and chronical diſeaſes, becauſe the ſtrength is impaired. *It reſpects,* 1. The *cauſe,* which muſt be taken away. 2. *The ſymptome,* which muſt be ſtayed by aſtringent means and things that ſtregthen the ſtomach and guts.

The Diffence is taken from the cauſes.

One is *by default of the retentive faculty* which is hurt, 1. *By the refrigeration of the guts,* which is cauſed. I. *By immoderate drinking of cold water,* eſpecially when the body is hot, by a ſoutherne wind over moiſt and exceſſive cold, eſpecially in bodies of a fine texture, &c. 2. *A cold diſtemper,* which ariſeth from flegm either generated there, or ſent from ſome other part covering over the wrinkles of the guts, doth make them laxe and ſlippery, duls their heat, and cloſeth up the mouths of the meſaraick veins. In this for the moſt part a Celiaca was precedent. If ſour belching which was not before, be ſupervenient to this of long continuance, it is a good ſigne. *The Cure* requires a caſting forth of the matter either by vomit or ſtoole, to which end ſerve, *Myrobalans Chebul. Citrini tamarinds,* Rhubarb. A reſtraint of the ſame and ſtrengthening of the ſtomach by *the diſtilled oyles of maſticke, wormwood, mint, &c.* order of dyet, in which wine takes place. II. *by a laxneſs* from the continuall uſe of things oyly, fat, and emollient, from whence is too great a mollification of the Mouth of the ſtomach, whether alſo belongs the reſolution of the nerve of the ſixth payre that contracts the fibres of the inward coat. III. *By a ſtrange quality inured,* and that *either* from an evil conſtitution of the aire, as happens in a popular lientery, or from the unſeaſonable eating of muſhrums, melons, cowcumbers &c. IV. *By a thick and ſmooth ſcar,* ſuch as is wont to follow a great diſentery, and a deep ulceration, which by its thickneſs ſtopping the Meſaraicks, hinders the diſtribution, by its ſmoothneſs the Retention. This muſt be rubbed off, and wiped away as it were by eating of ſharp things, attenuating and ſtrong abſterſives, *as muſterd Seed, Onions, Garlicks, honey of Roſes, Oxymel of Squils,* with a Mixture of things a little aſtringent.

Another is *by default of the Expulſive Faculty,* which is provoked, 1. *By an ulcerous Diſpoſition,* reſiding in the Superficies of the Guts and Stomach like puſtles. *'Tis known* from hence, that there was no Cœliaca going before, and there is a ſenſe of knawing and pain in the ſtomach. *In the cure* if *the Stomach* be in fault, eſchew vomits, let the Belly be looſned with lenitives, having ſome aſtriction, avoid Fat things. If *the Guts* be affected, vomiting is good. 2. By ſharp *humors,* whether generated there, or falling from ſome other part, eſpecially the Liver. *It is known,* as the former diſpoſition. *The cure is hard* if it be of long continuance, becauſe it paſſeth into a dyſentery: if it be with difficulty of breathing; and a pricking in the ſide, and the humor fal down from the brain, ſo that part of it fall upon the breaſt, becauſe it ends in a conſumption. If it be long with gripings, wormes, and paines, becauſe theſe being over it hath a ſwelling followes. The ſharpneſs is abated with the decoction of barley, ſuccory & other cooling things: if it continue long, rhubarb prepared in roſe water is effectual. 3. *From the taking of poyſon,* and then things alexipharmacal muſt be mixed, *the juice of dittander* with ſyrup of pomegranates, is commended.

II. *A Cœliaca is a ſuddaine paſſing of drink and meats out of the ſtomach into the gutts, in which they flow forth like unto chyle, or a milky ſubſtance.*

The Signs are evident. This paſſage is compleated within ſix or eight hours after meat, ſo that the thinner and ſubtler parts of the nouriſhment are alterd and concocted, and ſo paſs into the nouriſhment of the body, yet the body becauſe it is not ſufficiently nouriſht, waſteth

eth a way. The pulse is frequent, and heat afflicts as if there were a feaver; when they are going to stool some light faintings seize on them. Before it breake forth the belly is distended and struts out.

The CAUSE of it is cheifly *the il distribution of the chyle*, which is bred by the obstruction either of *the mesentery, spleen, or liver*, and *then* the chyle is voided white, the obstructions must be opened. Or *the weakness of the attractive faculty in the liver*, and *then* the chyle is somwhat dyed with a little reddish colour, the liver must be strengthened. Or the immoderate *Quantity* or corruptible *nourishments* and drinke; for hence there is much filth heaped up in process of time; being increased in those parts tis corrupted, and by its quantity or quality provokes the expulsive faculty.

The CURE Respects the Causes, as we have said, al the superfluous humor being emptied the flux stayes of it self, somtimes on the same day it began, sometimes on the next.

Point. 2. *Of the Diarrhy.*

A Diarrhy is an immoderate, frequent, and continual going to stoole, in which excrementitious and sincere humors, by their quantity or quallity stiring up the expulsive facculty of the stomach and guts, do flow forth without an inflamation, lientery, exulceration, Tenesmus, or vehement sence of paine.

There is no need to touch upon the *Signes*, for they are explaned in the definition.

The *Cause* is al that which doth preternaturally irritate and encrease the expulsive faculty of the stomach and guts: on the contrary doth debilitate and destroy the retentive, whether it be done by it self, or by consent.

The *Cure* is *difficult* if it befal a great bellied woman, because it withdraws the nourishment from the child, by moving, relaxes the ligaments and by raising up of filthy vapors causeth abortion. *'Tis easier* if vomiting succeed, because there is a revulsion of the matter from the lower parts to the upper. If it happen after an ophthalmy, because the matter is revelled from the upper parts to the lower. If it be supervenient to one sicke of a dropsie, though it be violent, at the begining of the disease, in ful strength and the bowels sound, because there is an evacuation made of the matter causing the disease from the whole habit of the body by the stool. *It must not presantly be attempted* if such matter be purged as ought to be, if it do good, and they beare it easily, if there be no feaver. For oftentimes to have a flux for one day or more is healthful, if it stop within seven dayes, if it be presumed from the circumstances to be critical. *'Tis accomplished.* 1. *By Emptying of the matter* it selfe, *By rhubarb* in substance, *mechoacan, tamarinds, myrobalanes*, and syrup *of roses solutive.* 2. *By revulsion*, which is done by bleeding, vomiting, frictions, ligatures, urine, sweats. 3. *By the use of astringents*, of which if we consider the simples the cheife are, *tormentil roots, Plantane, avens, sloes.* The leaves of *plantan, loosestrife. shepherds pouch.* The seeds of *Purslane*, of *cresses torrified.* The flowers *of roses, pomegranates.* Woods, *red Saunders.* Spices, *Nutmegs.* Minerals, *terra sigilata, bole armincke, Chrystal, &c.* If the compounds, they are, Tragæa of *Elder berries*, Quercetan in his pharmacopœa, c. 21. *the bones of a man calcined, terra dulcis vitrioli, crocus martis, burnt hartshorn, new treacle, old conserve of roses, diascordium, sperniolæ compositum*, and if the flux be too vehement, *Philonium Romanum, and laudanum opiate.* 4. *The diet*, in which *steele* water takes place; an immulsion of *sweet almonds* in tormentil water, or the decoction of *Oake leaves*, the pouder of diatragacanthum in reer eggs, &c.

The *Differences* of a Diarrhy are Various.

I. One is from *things external*, as *purging* medicines causing a super-purgation, which is stopped with the *root of dropwort* given in wine, by steeled milk given by glyster, by *laudanum opiate.* From *poysons*, against which alexipharmaca must be opposed, especially some graines of an emrald præpared in a convenient water. Another is from *things internal*, of which hereafter.

II. One is from the *whol Body*, which is *either* with a Feaver, *or* without a Feaver, as shal be said in the following Difference. Another is from *some part*, which see in the fifth Difference.

III. One is *with a Feaver*, the matter causing the Flux being transmitted from the whol Body, which *is known* by this, that things very crude, moist and watry, are cast forth with a noise, either often and little at a time, or much and altogether, and there are present the Signs of a Feaver. *'Tis hardly Cured*, if in a disease of long continuance with lothing of

meat

meat, ſtools be ſincere, that is, ſuch as have no watery moiſture mixt with them becauſe they ſhew a burning up of the native moiſture by a weak heat: if they be voided with often noiſe, and too much, becauſe that argues a crude ſtoole from vitious humors, this becauſe the often labor of going to ſtool cauſeth deliriums, and theſe have danger of fainting depending on them: If the ſtooles be thick, white, green, yellowiſh, frothy, becauſe they demonſtrate crudities, a diſturbed flux, plenty of yellow choler in the guts, a mixture of a windy ſpirit with the humor. *Sometimes by no meanes* if the ſtooles be black, fat, lived, like the ruſt of braſs and ſtinking. *The cure* is undertaken by the ſame means as before, having reſpect unto the Feaver. It *is divided* twofold. 1. Either it is *Critical*, which is to be ſtayed and promoted; or, *Symptomatical for a time*, which nature ſtimulated by the quantity or quality of the matter, doth order before concoction, but with ſtrength of its faculty, which is neither to be ſtopped nor promoted, nor ſometimes to be left to nature, but the matter to be emptyed muſt be revelled, altered. Or *plainly Symptomatical*, which is from the irritation of the cauſe of the diſeaſe, nature being unwilling as it were, which muſt be oppoſed by the remedies before rehearſed. 2. Or it is *colliquative*, or not, of which ſee the following difference.

Another is *without a feaver*, which *is known* by this, that the humor is ſeldom voided under its proper forme, but changed, and that 'tis ſignifyed by no ſigns that it doth proceed from the too much heaping in of corrupt meats, or other cauſes; there are no ſigns preſent of any particular part affected. It *is cauſed ſometimes* when ſerous humors the cauſe of a dropſy are voided by the ſtoole, or when in ſound men, whoſe veins abound with very much ſerum, the night or morning cold of the autum peircing deep into their bodies doth repel the ſerous humors from the outward veſſels towards the inward, & into the greater paſſages of the vena Cava, which at laſt being carried to the bowels, and to the creeping branches of the meſentery, flow into the cavity of the gutts. Concerniug the cure, note, That medicines are beſt given in *a ſolid form*; That Oyle muſt not be mixed with *vomiters*; that we muſt act with things incraſſating and abſterſive together; that the Seroſities are beſt of all diſperſed *by ſweaters*.

IV. Another is *colliquative*, which otherwiſe is called a colliquative flux, which *is known* by this, that the excrements are for the moſt part endewed with divers colors, commonly very ſtinking, Sometimes fat and viſcous, that there is a feaver preſent, either burning or malignant, or hectick, the body ſuddainly is waſted beyond meaſure, &c. It happens in burning feavers, a hectick, ptiſick, inflamations, in which by the great heat, not only the humors in the veins, but the next aliment of the parts is melted, and if it be thinner it is diſſipated, if thicker it flows to the belly. *The cure* is for the moſt part in vain, eſpecially in hectick bodies and ptiſical, whoſe haire falls off: we muſt act with coolers, moiſtners, and ſomewhat aſtringent, which are not ſo much to be applyed outwardly as inwardly, leaſt the flowing forth of the preternatural heat be hindered.

Another is *not colliquative*, of which in the third difference.

V. Another is *from the guts* when the matter cauſing the diarrhy reſides in them, and then *the cauſes are*, I. Sometimes *Worms*, whoſe ſigns wil be ready, and they muſt be driven away with their proper remedies. 2. *The obſtruction of the meſaraick veins* that they attract not the chyle, which being collected there, doth by its plenty ſtimulate the guts; and *then* the chyle is voided white; a conſumption followeth if the fluxe laſt long we muſt act cheifly with openers, and truly with ſuch, which alſo are good for the liver, and do not provoke to ſtool.

Another *from the brain*, which ſends an inſipid or ſalt flegm into the Guts, cheifly in the night, the patient ſleeping on his back, which either makes the coat of the ſtomach and guts ſlippery, or mixed with the meat weakens the concoction. *'Tis known* by this, that there are preſent the ſigns of an infirme brain, and 'tis moſt familliar with ſtutterers, by reaſon of their moiſture. *In the cure*, *Gargariſms* and maſticatories muſt be avoided, leaſt the matter of the catarrh be drawn into the ſtomach. *Veſicatories* may be applyed to the firſt and ſecond vertebra of the neck.

Another from *the ſtomach*, which *is known* by the ſigns of the ſtomach affected. *It ariſeth* either *from corrupt meats*, either of themſelves *then* becauſe nature is very much irritated, the other humors in the body are ſtirred up, an evil diſpoſition is brought into the ſtomach, and this diarrhy is dangerous; or from the manner of taking them, and *then* there is leſs danger. Or from *excrementitious humors* heaped there by reaſon of depraved concoction; which ſomtimes alſo are ſent from elſewhere, by reaſon of

their

their evilneſs are not attracted by the liver, and do ſtir up the expulſive faculty to excretion.

The Cure hath nothing Singular.

Another is *from the Liver* which *is obſtructed* either in the hollow part, where we muſt act with openers; or in the Gibbous part, and then diureticks do good. Or *abounds too much with Choler*, and then there wil be the ſigns of a diſtempered Liver. In *the Cure* is commended for its aſtriction; *Old Cheeſe* broken ſmal, waſht with ſome cooling and aſtringent water, and fryed in a Pan. The Diureticks muſt not be ſharp.

Another from *the Spleen*, which Caſts off a Melancholly Humor collected there, or derived from ſome other part, ſo that the ſtool is ſomtimes black as Pitch, by reaſon of blood from ſome veſſel opened in the hypochondries and poured into the Guts, and there burnt to a blackneſs, and *then* there are ſigns of the Spleen affected. Blood falling out of the Veſſels and concreting, if it be ſtopped, cauſeth ſwounings and other greivous evils. Somtimes the Scutvy concurs. Leaſt the biting Humor exulcerate the Guts, deterſive and tempering Clyſters ought often to be caſt in.

Another from *the womb*, when the Humors and Courſes being ſtopt are carried to the Liver, from thence to the Guts. *Then* ſomtimes periods of time are obſerved; in the Cure regard muſt be had to the Courſes.

Point, III. *Of a Dyſentery.*

A Dyſentery is a frequent, bloody, and Purulent going to ſtool, with a Pain in the Belly, and Exulceration of the Guts, from a ſharp corroding matter peculiarly offenſive to the Guts.

The *Name* of Dyſentery is attributed alſo to a diarrhy, in which the Humors which are voided do Cauſe torments, although there be no Exulceration: and with this if blood ſomtimes be voided, that comes rather from an opening of the Veſſels, than an Exulceration of the Guts.

The SIGNS are an often going to ſtool, becauſe the Guts are ſtimulated by the acrimony of the Humor; ſomtimes continually if the matter be ſufficient, ſomtimes it returns periodically every third day. The pain and torments of the Belly are eſpecially at going to ſtool, and a little before the excretion. Thoſe things that are voided are, ſomtimes Cholerick, and of divers kinds, ſomtimes mucous and bloody, ſomtimes wholly different from the natural kind of excrements. A Feaver ſomtimes ariſeth preſently at the begining, ſomtimes when the Diſeaſe hath laſted for ſome daies, by reaſon of reſtleſſneſs and putrefaction. See the difference from *an Hepatick flux* in the Chapter of that; It differs *from an impoſtumation*, at whoſe breaking there follow eliquations as it were of matter, becauſe in that a beating pain doth precede neer the affected place, and there is neither biting nor looſeneſs, &c.

The CAUSES are ſharp Humors corroding the Guts, and peculiarly offenſive to them, conteining I know not what Antimonial, Helleborine, or ſomwhat like unto the Sea Lungs, offenſive to the Lungs, and like to Cantharides inimicous to the bladder. Theſe infected by a Dyſenterical Contagion, peircing into the Veins and arteries do cauſe a Fermentation and imprint a diſpoſition like unto it ſelf, by a ſtain on the whol maſs of blood, and ſtir it up with the other Humors as purgers do: they fix alſo an evil diſpoſition on the Guts, ſo that the chyle paſſing by is changed into a vitious Humor, and the Excrements of the Belly receive not a natural Elaboration and quality. Somtimes in human bodies they are rendred ſuch by the occult influences of the ſtars; hence ſucking children, who never came into the open aire, and were only nouriſht with their Mothers Milk, are ſomtimes taken with a Dyſentery. But *they have their Original* from *Waters* carried through Leaden and Old condites; from the ſpring *Aire*, rainy and ſoutherly after a dry and northerly winter, both by reaſon that the drying up of the Humors is hindred, and by the ſtrong putrefying power in moiſture: from a hot and dry Aire, thence at the begining of the autum, and end of the Summer this Diſeaſe is raiſed, and Reigns chiefly in the hotteſt Countries. From evil and unaccuſtomary *Meats*, hence in *Ægypt* and *India* 'tis common becauſe they feed on the fleſh of beaſts which are nouriſht by *Caſſia Fiſtula*. From autum, *Fruits*, both becauſe they eaſily putrefie, and becauſe by their aſtriction they retaine thoſe which are putrefied. The uſe of Grapes and new Wine, becauſe they make a Fermentation, and are eaſily tainted with foulneſs, Blaſting, dews.

The CURE is *Difficult* in women by reaſon of their tenderneſs and weakneſs; in Children by reaſon their Guts are moiſter, and therefore ſubject to Putrefaction; in Old People

people by reaſon of the greatneſs of the cauſe that is the acrimony of the humors in a body indiſpoſed, and Feebleneſs of ſtrength. *'Tis doubtful* if the ſtools be ſincere, that is, mixt with no wateriſh moiſture. If the effuſion of pure blood be joyned with it, for it ſhews that the greater veins are corroded. If loathing of meat afflict with a feaver, becauſe the ſtomach being drawn into conſent, the concoction is weakened, & there is ſome ulcerous putrefaction in the guts. If cholerick vomitings ſeize at the begining, becauſe it argues a great power of boyling choler which troubles the upper and lower belly. If the ſtools be continual, or that ſtopping a new dilute flux, bloody like to an hepatick flux; or a filty diarrhy do follow. If it invade with a feaver or with divers colored ſtools, or an inflamation of the liver. If it happen to a woman great with child, and bate not after the delivery of the child and voiding of the ſecundine. *Of ſome hopes*, if the excrements be changed, unleſs the change be to worſe, if belching or farting ſucceed becauſe it is a ſigne that nature doth begin to concoct. If it befal the ſplenitick, becauſe the melancholly humors are carried away, where we muſt wel diſtinguiſh between the melancholy blood concrete in the guts, and black choller. If it follow madneſs, becauſe it betokens that the matter is tranſlated from the head to the lower parts. *Of little hopes*, if black choller be voided of its own accord, no feaver going before, nor good concoction appearing, becauſe it differs nothing from an ulcerated cancer. If convulſions and cavings Succeed, becauſe they ſhew the matter is carried to the head and nerves. If peices of fleſh be voided, becauſe the ſubſtance of the guts cannot be regenerated, nor a ſcarre be drawn over ſo great an exuleration. If any one releeved from an acute diſeaſe be taken with it, becauſe his ſtrength is not able to undergoe it. If in proceſs of the diſeaſe the hickops follow, if a black puſtle like to a vetch appear behind the left ear with a great thirſt, becauſe it ſignifies death on the twentieth day.

The Cure is accompliſht. 1. *By revulſion and derivation of the humors* ruſhing to the guts, where *Bleeding* takes place if there be plenty of blood: if it ruſh violently with the humors to the guts; if there be an inflamation, or if it be feared. If the Feaver be continual. If a hot liver miniſter matter. *Yet note* it muſt be emptyed by little and little, timely and at the firſt dayes, leaſt the ſtrength be dejected, the median or liver vaine muſt be opened with a ſmal orifice: the vein of the ancle if ſome accuſtomary evaccuation be ſtopt. 2. *By emptying the corroding humors*, ſo that the ſtronger be avoided, becauſe they move the humors to the guts. Let the purging be at the begining, before there folow too great exulceration; and that very often that the humor may be taken away. The ſyrup made *of the infuſion of damaſke Roſes* is commended, *Myrobalans*, *Tamarinds*, the infuſion of *Rhubarb* firſt of al not torrefied, afterwards torrified if we would binde a little. *Mechoacan*, by whoſe frequent uſe the belly is dryed. The decoction of *myrobalans*, which ſee in *Sennertus*. 3. *By the abſterſion of the ſame humors* by glyſters made of barly, the yelks of egs, honey of roſes, Sugar and other things, according as the exulceration is greater or leſs. 4. *By mitigation of the pain*, for which ſerve *cows milk*, ſo that the body be purged, and if there be a Feaver. Let it be mixt with plantane water; or let it be boyled with flints, with yelks of egs, and the mucilage of quince ſeeds and caſt in by gliſter. *Mulein*, goats ſuit mixt with the ſame; a clyſter deſcribed by *Sennertus of a weathers head*. 5. By *ſtopping of the flux*, by the medicines rehearſed in a diarrhy, to which ad *raw ſervices*, if the flux be moſt deſperate a *Nutmeg* roſted in the embers if there be no feaver; *the decoction of the clay of the furnace* in ſteeled milke, *new treacle* if there be no inflammation, the pouder of a *dogs-turd* fed three dayes with bones, drank with goats milke, *Laudanum opiate*: but theſe ought ſo to be adminiſtred, that ſometimes hot, ſometimes cold things be given. To cooling things let hot things be mixt that helpe concoction; al in a ſmal quantity leaſt the flux be ſtopt ſuddenly, and let them be given often, becauſe they ſtay not long in the guts. 6. By the uſe of *mundefiers and things that fil up the hollow ulcer*, &c. in which obſerve that when as the pain is exaſperated by the uſe of deterſivnes, the glyſter being voided, another muſt be given made of milk. 7. *By the application of topicks*, concerning which, *note* that aſtringents are of force rather in lean bodies than in fat, when as in theſe they cannot penetrate. Things very cold, neither vertually nor actually muſt not be choſen: vinegar or thin white wine muſt be mixed with them. Cataplaſmes are of no force in a dyſentery from ſharpe choller, when as they leave a biting quality behind them. 8. *By dyet*, in which biskit bread, milk of ſweet almond, sthe flower of ſugar, &c. take place.

The *Differences* of a Dyſentery are Divers.

I. One is in *making*, when the exulceration begins onely in the ſuperficies of the guts, and

there from them suffering *an inflamatory disposition*, their temper being destroyed.

Another *is already made*, when the corrosion peirces deeper, and either fibres and smal skins of the inward coat are voided with blood, or peices of the fleshy substance cut off from the proper substance of the guts are voided with membranous shavings and much blood and purulency, which is the utmost degree of malignity.

II Another is *of the smal guts*, in which the pain is most acute by reason that they are membranous; the stool is longer after the torments, the blood is exquisitely mixt with the excrement by reason of the longer passage, the blood is blacker. Purging medicines must be given by the mouth: 'tis almost incurable.

Another *of the great guts*, in which the paine is less by reason of their fleshiness, tis cheifly perceived about the navel, by reason of their situation; the stools are quickly after the torments; the blood & purulent matter swims upon the excrements of the belly. *Note* that for the most part the great guts are tainted, and being tainted medicines are best administred by glisters. Somtimes the stomach and neighboring parts are drawn into consent, somtimes the belly over against the ulcer and hole is perforated, by reason of the putrefaction communicated to it.

III. Another is *from things external*, viz. either from *poysons*, whose cure is performed by vomits; by things that dul them whiles they reare, as milk, rice, fat broths; by antidotes, cheifly six grains of an *emrald prepared*; but they must abstain ten hours from meat, and sweat. Or by *purging medicines* that are very strong, and then if you consider the cure, after absterfives 'tis good to drinke warme milke, new treacle, &c.

Another is *from things internal*, of which hereafter.

IIII. Another is *epidemical and malignant*, in which we must act with things alexipharmacal, amongst which are harts-horn, terra sigilata, Corals, saphyres, water germander, pulvis Bezoardicus aureus. The same may be mixt with purgers.

Another is *simple*, to which those things above may be applied.

V. One is from *Yellow choler*, from which for the most part it begins, the which sometimes is generated in the stomach, somtimes in the guts, sometimes is cast from the bladder of gall, the meseraick veins, the whole body.

Another from *Black choler*, which if it be voided by reason of a crisis in feaverish diseases it may be cured. It ought not to be purged before it be tempered, and then with Lenitives.

Another is from *Choler of a leek color, and the rust of Brass*, which though by Nature collecting it self it may be cast off, yet not presently.

Another is from *Salt Flegm*, which somtimes is produced in the head from a great heat, somtimes in the stomach; being carried to the Guts, and by its clammines sticking long to them, it troubles them, and at length Exulcerates. 'Tis hardly Cured. 'Tis wel rooted out with *Agarick and Mechoacan*.

Point, 4. *Of the Bloody and Hepatick flux.*

I. *The bloody Flux is known* both by the sight, and by this, that it is voided without pain and exulceration. It *ariseth*. 1, *By reason of plenty of Blood* proceeding *either* from a hot distemper of the Liver, and then there wil be signs of fulness. 'Tis voided without pain and wasting of the Body; the Urin is thin, of a Goldish color. Thirst oppresseth both by reason of the wasting of the moist substance, and the heat of the Liver. *In the Cure* the diet must be abated, the Liver must be corrected by succories and other proper coolers, steeled milk, &c. If Choler be mixt with it, it must be emptyed. *Or* from the cutting off of some member, and then blood must be let according to Course. *Or* from the suppression of some accust omary Evacuation, and then we must act by frictions, the stoppage must be opened. 2. *by reason of a vein broke or opened*, which is known by this, that it is cast up also by vomiting. Some vehement fal hath happened before. Fainting is Caused by reason of the putrefaction in the stomach. The cure is difficult.

II. *An Hepatick flux* is either *Exquisite*, which *is known* by this, that that which is voided doth look thinly red, as the washing of the flesh of a beast newly kild, doth not clod together, doth flow more frequently, yet not so often as in a dysentery; without any knawing, but yet not without a Heavy pain; the Eyelids are swelled and the Feet, the excrements are crude. It *ariseth* from a weakness of the Liver, and the defect of natural heat in it, from causes that do dissipate, or choak it up. *The Cure* must be hastened because this Disease Leads to an ill habit of Body, a dropsie, and Consumption. *'Tis hard* when tis beginning, and in young men. *Almost incurable* when its inveterate and in old men, and in them also whose spittle is bloody, somwhat pale, or clearly cholerick. It excludes Purgers, and

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is perfected only with altering & ſtrengthning medicines mixt with the meats (Hens Livers Chickens and Geeſe ſtones, are commended.) Or *Spurious*, in which the blood is *either* acrid by the mixture of Choler, *or* thick by its long ſtay in the Liver, or elſewhere, *or* fæculent by reaſon of the foulneſs of the Liver becauſe the Spleen doth not attract the feculent parts.

Title, IV. *Of the Affects of the right Gut.*

Chap. 1. *Of the Diſeaſes of the right Gut.*

THe Diſeaſes of the right Gut are, *Inflamation, warts, Clefts, and Fiſtulaes.*

I. *Inflamation* comes either from violent Cauſes, or from Medicines, and corroding cauteries. It *is known* by the ſharp Launcing pain, fixt in one and the ſame place, by a vain deſire of going to ſtool, in which by reaſon of the greatneſs of the Tumor obſtructing, nothing or very little is voided. *The cure is difficult* both becauſe the part is endewed with an acute ſenſe, and becauſe the Excrements of the Belly hinder Applications, and becauſe by reaſon of the heat and moiſture of the place, the Diſeaſe degenerates into Ulcers.

II. *Warts* are either *Condylomata*, or ſwellings of the Skin of the Anus, viz. Hard and callous bunchings, growing out from a Melancholy humor more troubleſom than painful. Or *Thymi* or the rougher warts, having a narrow baſis and large ſuperficies, which do eaſily pour forth blood into the ſame; which if they grow out much are called *Ficus*; If they bleed, they are worſt of al, eſpecially if a diſpoſition to a Cancer draw neer. Or *Criſta*, or excreſcences of fleſh ariſing from prepoſterous Venery. *They are taken away* either *with the Aſhes of Mouſe dung* boyled with Wine and applied: or *with the oblong ſhels of Fiſhes* found by the Sea ſide, calcined and boyled the ſame way and applied. That they grow not again they muſt be anointed with Vineger, and *the Aſhes of the Twigs* of a Vine.

III. *Rhagades* or *Cleſts* are oblong Ulcers of the Anus without a tumor, and thoſe ſuperficial or deep, Callous or without a Callus, moiſt and pouring forth filth, or dry and Cancrous: *they ariſe.* 1. *From the too much hardneſs of the Excrements*, which in their paſſage do break the Skin. 2. *From a dry diſtemper*, having joyned with it ſharp Humors and ſomtimes malignant, where moiſtners take place. 3. from *flowing of ſharp corroding humors* that have a certain clammineſs, by reaſon of which they ſtick to the part, and then an itching and moſt ſharp pain with burning troubles them. The Purgers ought to be gentle and moiſtning. Care is to be taken of *the Virulency* which diſcovers it ſelf by the filthy ſmel and evil matter. A Clyſter of *the Mucilage of Tragacanth, the Seeds of Fleawort, of each one ounce and an half; Freſh Butter, three ounces; Red Sugar, one ounce; Oyl of Violets, five ounces; is commended.*

IV. *Fiſtulaes* do follow inflamations, Tumors and Ulcers of the Anus ill Cured. *They are known* by their narrow Orifice, but a boſome lurking within. There is voided thence matter ſomtimes watry, ſomtimes virulent. *They are divided* into thoſe which *do not penetrate* either into the right Gut, or into the bladder, which is diſcoverd by putting in a Probe; which if they bring no great diſcommodity are only to *be Mundefied* with the Decoction of Agrimony and a little Alum: and the Orifice if it be too narrow muſt be dilated with Elder Pith that the matter be not retained: but if they *ought to be Cured*, univerſals premiſed, they muſt be waſhed, dilated, and cut. And thoſe which *do Penetrat* either *to the Right Gut*, and then the Excrements of the Belly are voided through them, and liquor injected comes out through the Gut: or *to the Bladder*, and then the Water is made through them. Or *to them both*, and then a Fart is let from the Privities as wel as from the Arſe. All theſe are ſeldome Cured. Amongſt things conſolidating, *Joel* commends the pouder of *Mercury Precipitate* ſtrowed on, laying over it a common Plaiſter. Urſenick prepared, or reduced to an Oyl layd on, and the ſame Plaiſter over it. If the Fiſtula be in *the Sphincter muſcle*, the Excrements of the Belly iſſue forth of their own accord. See *Hippocrates* concerning them.

V. Hither belongs alſo an *Intertrigo*, which is *an Excoriation of the Parts neer to the Anus ariſing from vehement motion.* 'Tis Cured with Deers and Goats Suet.

Chap. 2. *Of the Symptomes of the right Gut.*

THe Symptomes of the right Gut are; *Itching of the Anus, Tenesmus, the flux of the Hemorrhoids, and the stopping of them.*

Article, I. *Of Itching and the Tenesmus.*

The Itching of the Anus is a Certaine painful tickling of the same.

There is no need of *Signs*. The *Differences* are taken from the Causes. I. One is from *sharp, Salt, and Viscous Humors* sticking to the Sphinter, which must be emptyed: but the Arse must be washed with the Decoction of the Leaves of Mallows, Violets, Roses with Plantane water and a little Alum. 2. Another is from *the Excrements left there*, which are wel washt off with the Decoction of Mullein. 3. Another from *Worms*, of which in their Chapter. 4. Another from *an ulcer*, to the which the Cure must be directed.

II. *A Tenesmus is a continual desire of going to stool, with pain, in which either nothing, or a few Mucous things are voided.*

There is no need to add any *Signs*; somtimes the right Gut fals forth, and a dropping or difficulty of Urin happens, by reason of the Neerness and consent of their Parts.

The CAUSE is whatsoever is fixt to the extream part of the right Gut, and can stimulate its Expulsive Faculty: but what that is, shal be explained in the Differences.

The CURE must not be neglected, because from neglect of it oftentimes a sordid Ulcer remains, which somtimes passeth into a Fistula. It respects the Causes and the pain which must be mitigated.

The *Differences* are taken from the Causes.

I. From *the too great cooling of the right Gut*, which is taken away with the Decoction of the Flowers of mullein, chamomel, Melilot, Dill, with the Seeds of Flax, Fenugreek, Bran.

II. From *the Stone* or *worms*, concerning which see in their places.

III. From *the cause producing a Dysentery*, and then the manner of Cure is the same almost with that of a Dysentery. Let the quantity of the Clyster be but little, the Ulcee be washed and healed. *The Mucilage of the Seeds of quinces* and Fleawort extracted liquid with Water or Plantane, Nightshade is good, adding Bole armenick or washt aloes and cast in by Clyster.

IV. From *Cholerick humors*, or *Flegmatick and Salt* sticking to the same, where a Clyster of the broth of *weathers Flesh* with a few drops of Oyl of Wax being given takes place, &c.

Article, II. *Of the Flux and stoppage of the Hemorrhoids.*

The Flux of the Hemorrhoids is too great a casting forth of blood by the Hemorrhoidal Veins.

This Disease hath no need of SIGNS: First of al there flowes black blood, feculent and thick, and it comes forth as it were by drops whiles they wipe their brich, afterwards good and ruddy, at last yellowish and pale. From thence the thighs grow weak, the Hips feel a heavy pain, the color of the Face is depraved. Somtimes it observes its Periods, somtimes it neglects them.

The CAUSE is whatsoever doth either Irritate the Expulsive faculty of the Veins and arteries of the Liver or Spleen; or hurts their retentive.

The CURE shews it must be suppresst, which is performed by *Revulsion*, by opening a Vein, and by the external and internal *use of astringents*. *Outwardly* are good by a propriety, a *girdle of the Leaves of Black Hellebor* bruised, fresh, and girt about the naked body; upon the use of which, if pimples be raised the pain must be taken away by its remedies. *Spunges* which grow under the seats of hot Houses in baths, if they be burnt to pouder in a new pot, and strewed on. *Colcothar* or that thick Feces which is left at the distilling of Oyl of Vitriol, if they be toucht with it, one only being left. *Inwardly* is commended *Essentia Martis*, of which see *Hartman*. A Confection of *the refuse of Iron*. The Old Conserve of Roses with Bole armenick, &c.

The *Differences* are taken from the Parts and Causes.

I. One is of *the internal*, which ariseth from a branch of the Spleen, extended through the Mesentery

Mesentery about the Colon and right Gut, in the Muscles of the Anus and inward part of the Gut, having an Artery joyned with it, that alone is there terminated. *It is known* by a weight about the Fundament, difficulty of going to stool, by Clysters, Suppositories, or an instrument. And also if a Cupping-Glass be applied, as *Zacutus* hath done.

Another is of *the External*, which proceed from the Epigastrical branch of the Vena Cava, and are disseminated to the external parts of the right Gut, viz. The Muscles of the Anus, but they are two, having an Artery joyned with them from the Hypogastrical Artery. Yet they seem al to have communion one with another. *It is known* by the sight, and because 'tis greater, 'tis also more dangerous. *In the Cure* external things have a convenient Application.

II. One is by *default of the blood*, which either is *too much*, and then there are signs of fulness, we must revel by bleeding in the Arme, or if strength wil not bear it, by fixing Cupping-Glasses to the Loyns or Hypochondries. Or *sharp and thin*, and then it happens most to Southern people, especially to men that are Sanguine. Serous Humors if strength wil bear it, ought to be emptyed: if not, we must use coolers and things that thicken the blood; amongst which, Purslane, Trochiskes of burnt Ivory, and Amber do excel. Or *it flows from the Liver*, and then 'tis like to Water in which flesh new kill'd is washt. *The Syrup of corals* is good. Or from the *upper Parts*, and then the blood is black and burnt. Or from *the Mesentery*, and then 'tis little, somwhat white & Serous. Or from *the Guts*, and then 'tis mixt with the Excrements.

Another is *by default of the Veins*, which either *are opened*, in which Cause we must use *Agglutinatives*, as the Mushrum, which is called the Wolfes Fart, &c. Burning and cutting, the which are dangerous, especially in those that are inveterate and of long continuance. Or *Eaten through and broke*, and this Evacuation Casts a man into a Dropsie and other Diseases.

II. *The Suppression of the Hemrrhoids is an interception of the blood endeavouring to get forth through the Veins of the Anus, from whence they are raised up into a Tumor with pain.*

The *Signs* are a tumor and bunchings out in the heads of the veins of the Anus, sometimes hard & like unto warts, somtimes soft caled like to mulberries, somtimes of a purple colour, and like to grape stones; the pricking paine, is somtimes milder, somtimes more grievous, the Veins being distended whose Mouths hangs as it were out of their heads, and the membrane which covers the orifices of the Veins, stretcht and prest.

The CAUSE is Fæculent and thick blood desiring to get forth.

The CURE must be *hastened*, both because it threatens a dropsie if the blood run back to the liver, and because unless it be seasonably remedied, by reason of the great attraction, and flux of humors it causeth inflamation, impostumation or a fistula. It *is performed*, 1. *By mitigation of the pain*, which is asswaged by the crum of *Barly bread* steeped in womans milk, adding the yolk of eggs and saffron. 'Tis taken away *with laudanum* dissolved in womens milke, & applied with honey, but most of al with *Butter*, *Sugar or anima Saturni*, with *flies* of sheeps dung boyled in oyl of flax to the consumption of the creatures, *with the ashes of corke* burnt, and boyled with capons grease, with the oyntment of toad-flax, concerning which see *Hartman*. 2. *By opening them*, universals premised, by application of leeches: or before that be done by an ointment *of the Pulp of Coloqintida* and oyl of sweet almonds; by the juice of onions mixt with aloes applied, rubbing first the part with a course cloth. Sharp glisters do hurt the guts more, then they provoke the hemorrhoids. Unless they swel very much and be very painful, they ought to be left to nature.

In the differences of *the internal end external* veins we must have a care. The suppression of *those* is perceived by the squeezing of the Anus, and thrusting up a probe. Of *these* is obvious to the sight.

Title. V. *Of the affects of the Mesentery.*

Chap. 1. *Of the distemper and obstruction of the Mesentery.*

THe affects of the mesentary are, *distemper*, *obstruction*, *inflamation*, *impostumation and pain.*

I. The distemper of the Mesentery for the most part is hot and dry, which arileth from the

the like matter, which either is collected there, or sent thither from some other part. *It is collected* either in its *veins and arteries*, and then because the breast hath the greatest consent with the hemorrhoidal artery, because the trunke from whence the artery ariseth descending from the heart, presently at its first rise, doth propagate the intercostal branches, there are continuall pains felt in the breast: or also *in its glandules* by their laxnes easily drinking up the matter. *The cure* must not be neglected, because 'tis wont to fore-run a dry dropsy. But it hath nothing singular, except this, that by those arteries not onely the first passages, but also the whol body might be purged, whether you give purging medicines, or inject glysters: and this perhaps is the cause, that purging medicines layd to the navil do move to stool.

II. *The obstruction of the mesentery* is twofold, one *when the milky veins are obstructed*, which is knowen by this, that a chylous and white flux of the belly doth molest, and a consumption follows, the matter necessary for the nourishment of the body being denyed. That *ariseth* either from a thick, crude, clammy, viscous chyle, generated of the like meats, or from a tumor of thé glandules compressing them. Another is *when the mesaraick veins are stopt*, which is known by this; that the matter restrained, causeth a sence of distension and heavines, beatings of the arteries about the back are troublsome, after taking of meat the evil grows more fierce, and the stomach is compresst, &c. That *ariseth* either from *vaporous* and thick winds, or from *sharp humors*, and *then* the paine is more vehement, sometimes while the evaporation lasteth, the evil possesseth the whol cavity of the breast, that somwhat is at hand like unto a suffocation; somtimes there is a tumor raised about the mouth of the stomach, and vaine belchings are produced, those things being suppresst that should be voided by the lower parts. *The cure* is perfected, 1. By openers, and those indeed gentle. That give strength to the liver and Stomach, penetrating incisive, drying, lesning putrefaction, and a little while astringent: not by sweet things but bitter reduced into the forme of electuaries or pills, but that liquor be drunk after them. *By tartarous* things unles the saltnes or sharpnes of the humors do hinder, by things that savour of *Oxymel*. 2. By *purgers*, unles windines do hinder, and those gentle, not constant, after the same manner, given by little and little, liquid. 3. *By vomiters*, but not violent, *Platerus* his *essence of broom* is commended. 4. *By diuriticks* that make thick humors fluid &c. the liver is strengthened by *Leonius his pills of the refuse of Iron*. *By Mercatus his antidote of steele*. By *Penotus* his arcanum *of vitriol, sulphur, and sallows, &c.*

Chap. 2. *Of the inflammation and impostumations of the mesentery.*

AN inflammation of the mesentery is a tumor of the same arising from humors poured forth with the nourishing blood into its spaces, or deeply impacted in its glandules, and putrefying by the accession of external heat.

The signs are a slow feaver, for the most part a semitertian, a pain in the Loins, sometimes on both sides, sometimes in the right, which extends it self to the fore part of the belly, above and about the Stomach; costivenes of body, chylous stools, which for the most part a thin matter doth follow, somtimes sincere and yellowish, sometimes mixt with the excrements. *It differs* from the pains *of the stomach, of the womb, Chollick, and Stone*, by the signs expressed in them. *From the Fatnes of the Belly*, because this may be al comprehended in the hand, because it cleaves to the upper skin, and may be separated from the muscles of the belly. *From a tumor of the muscles of the belly*, because that where 'tis prest causeth paine, and doth not so much bind the body.

The Cause is explained in the definition; the blood *is poured forth* thither, because the way for it to the guts is stopt, either by astringent things, which happens in a dysentery ill cured, or by plenty of thick, clammy humors, suddainly rushing to the guts.

The Cure must not be neglected, for 'tis dangerous both by reason of the feaver with which the patient wasts, and by reason of the putrefaction, by which the mesentery is corrupted. But 'tis extended somtimes to the fortieth day, somtimes to the eighty, somtimes it lasts al the life time, a feaver and collick paines somtimes returning, somtimes ceasing. *'Tis performed* as in other inflamations, only note, that the coolers ought to be more benign

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leaſt the matter be more impacted. *The purgers* muſt be none or gentle, nor in the beginning leſt more be attracted, but when the inflamation tends to concoction. Neither is *Caſſia* ſafe enough in the undertaking of the Cure.

As concerning *the Differences*, ſomtimes *the Guts alſo are inflamed*, and *then* al things are worſe. Somtimes *the Inflamation ſticks about the glandules*, and *then* they are lighter. Somtimes *the neighbouring Liver is drawn into conſent*, and *then* a burning Feaver for the moſt part goes before, the evil afterwards tending to ſuppuration, a ſlow Feaver follows.

II. *Impoſtumations* that do moleſt *the Meſentery* are various; for, 1. If you conſider the *place*, *either* they are above the Navel, *or* beneath it, *or* about it. 2. If *the Conſtitution*, ſomtimes the Meſentery is found made up *of many great Schirrous Tumors*. Somtimes *Stones* are found in it. Somtimes it hath *infinite Impoſtumations* without ſenſe and pain, included in their proper bagg, and conteining, a Gypſeous, glutinous or liquid matter. But they are hardly *known*, and ſomtimes not till after death; yet if the Belly be ſwelled, and the Symptomes preſent, and there are no ſignes at hand, neither of a dropſie, nor of ſome other Diſeaſe of affinity with it, we ought to ſuſpect them. But *they are voided* prodigiouſly. *Somtimes* of its own accord this filth breaks forth by the ſtool, and oftentimes fetching a circuit it returnes again. *Somtimes* being copiouſly poured forth between the Peritoneum and Muſcles of the Belly, it either fals into the Cavity of the belly breaking the Peritoneum, or breaks outwardly by an impoſtumation, &c. *Somtimes* this happens, the patient bearing it wel, ſomtimes it haſtens his death. Concerning their *Cure* theſe things in general muſt be noted. 1. That the belly ought alwaies to be looſe. 2. We muſt make haſt with reſolving materials, but light, that have an aromatick vertue, mildly aſtringent. 3. Amongſt deterſives *Mercatus his Syrupe of Steel*, bears the Palm. 4. To Conſolidate, *Cypres Turpentine* any way prepared is to be preferd before al, eſpecially if the matter offending lurks in the Loyns, and about the Kidneys. 5. For the ſpeedier ripening of the impoſtumation *a Bath of ſweet water* muſt be often uſed. 6. That the ſtrength is exceedingly confirmed with *the eſſence of Arſmart*, and Oyl of vitriol. 7. Sharp things ought to be avoided, becauſe by their penetrating and abſterſive Faculty they corrode the Ulcers, and deſtroy the temper.

Chap. 3. *Of the Pain of the Meſentery, and the affects of the Caul, and Pancreas.*

THe pain of the Meſentery is a ſaid ſenſe of it, which ariſeth from a hot and ſharp matter thruſt into the menbranes of it, afflicting with a perpetual Pain of the belly and Loins by intervals, eſpecially the time of Autum drawing neer, and ſomtimes is diſperſed into the head and whole body.

The Signs *of that to come* are a Jaundice diſpoſition conſpicuous in the eyes, and every where about the temples, the appetite loſt, a heavineſs increaſing in the Hypochondries, ſeldome going to ſtool, ruddy Urin. Of *that preſent*, a ſtrong ſuppreſſion of Wind and Excrement, a vehement Pain of the Belly and Loyns, a caſting up of Medicines by vomit, little ſucceſs of Clyſters, &c. The ſtrength is not to be Judged by the Pulſ, for that is ſmal in al great pains. Of *that Increaſing*, the ſick caſt off al Hopes, the ſtone for the moſt part gathers ſtrength, the neighbouring Muſcles of the Belly and the Peritoneum from the internal putrefaction gather Corruption, the pains diffuſe themſelvs into the whol compaſs of the belly, nay they paſs to the utmoſt joynts, yet chiefly to thoſe of the ſhoulder and Feet, at laſt Convulſive motions poſſeſs them. It *is diſtinguiſhed* from the pains *of the Womb*, *Kidneys*, *Ileon*, *Sciatica*, by the ſigns which are delivered there.

The CAUSES are ſharp putrid Humors, endewed with a quality inimicous to al the bowels, eſpecially the liver and ſtomach, which after Nature hath in vain tryed to empty by ſtool, are caſt into the Meſentery, which is nothing elſe than the peritonæum doubled and faſtend to the Loins.

The CURE is *doubtful* if the pains be low, becauſe they are the ſtronger. If they be felt above the navel, and are not diſſolved by any Medicines, becauſe they end in a dry dropſie. If pains of the Kidneys ſucceed by reaſon of the neerneſs of the mine of corruption. If

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new obstructions succeeding, the evil from thence grows more fierce. *Of little* or *no hopes* if vomitings molest, cold sweats, and often hickops. If they last long, the patients be feaverish and loath meat; because 'tis to be feared, least the paine proceeding to the head, do suddenly kil them after the manner of convulsions if watchings preserve and be vehement. If an inverted course of nature draw neer. If a hectick arise, or a suppuration of the peritoneum and neighboring parts. *'Tis performed,* I. *By taking away of the Causes,* where do take place, 1. Glysters, which to mollefy ought to be made of *Goats milk* with cassia and oyle of violets. To clense we must ad a little hiera picra, and honey of violets, 2. Purgers by intervalls repeated, if you perceive obstructions by the ruddy water, gentle, from which notwithstanding we must exclude *manna* by reason 'tis abundantly windy, 3. Preparatives and openers of the decoction of *Scorzonera, grass, strawberries,* with the cordial flowers, to which we must premise anointing of the belly with Oyle of *Violets, dil, Chamomel,* a little butter in which a *Snakes Skin* ought first to be boyled. 2. By *mitigation of the pain* by cataplasmes, unctious, fomentations, baths of sweet water, narcoticks also mixt with purgers, &c.

II. *The Pancreas* doth chiefly labor *of obstructions,* whence the stomach by reason of its neerness is affected, pains and the sence of a weight are caused about the region of the stomach, and pulsations in the back, by the compression of the celiacal artery, and also a difficulty of breathing molests them by the consent of the midriffe. *The cure* is perfected by the same remedies, as the obstructions of the spleen.

III. *The Caule* by twiggs from the spleen branch, doth oftentimes receive feculent humors from the spleen, in that part especially, which is between the spleen, the midrif, and the stomach, in its cavity in the left hypochondry under the diaphragma, arising from the connexion of the stomach, Caule, colon and bowels, and having no passage out. Oftentimes from thence the belly in the left part towards the navel is raised up into a tumor, oftentimes the belly being prest, a sound and noyse is heard. They cannot be *emptyed* unless they vanish by the continued drinking *of bath* or *sharp waters. If it putrefy* or suffer *an impostumation* the cure is in vaine,

Titile VI. *Of the affects of the Liver.*

Chap. 1. *Of the diseases of the Liver.*

Article, 1. *Of the Distemper of the Liver.*

THe diseases of the Liver are, *distemper, obstruction, inflamation, a schirrus, wounds and ulcers.*

The distemper of the liver, is a swarving of the same from its natural temperament by reason of external and internal causes.

The Signs are fetcht from the hurt of its action, and others (of which in the differences.)

The Causes are *either* not natural and external, *or* the neighbouring parts, as the stomach, heart; and that *either* by contact, *or* by communication of matter: *or* the collection of matter in the vessels or parenchyma, by reason of some fault of the liver, either innate, or acquired.

The Cure varies according to the nature of the differences. Internal remedies, because the liver is situate in a lower place, ought to be the more efficacious. *'Tis performed,* by alteration, and removing the matter offending.

As concerning *the Differences,* the distemper is fourfold.

I. One is *hot,* and that either simple or *without matter,* which *is known* by this, that there is a loathing of meat, and most of al of flesh, and nevertheless fastings doth hurt, a vehement thirst troubles them, the whole body is hot, especially the palms of the hands, and soles of the feet, and either they are moist or dry, the belly is somewhat dry by reason of the extraction of the moisture from the chyle. It is *cured* by coolers, amongst which the cheife are, the roots of *Dandelion and Strawberries,* the leaves of *Succory, Endive,* the seeds of *Sorrel, the greater and lesser cold seeds,* the wood of *Saunders,* fruits of *Cherries, Currans, Strawberries.* Of compounds, syrupe, *of Corals, Strawberries, Sorrel, Citrons, Succory.* The Salt of *Corralls.* Pouders, *Diatrion Santalon, diarrhodon Abbatis,*

Diamargartium

Diamargartium Fridgidum. Mynſichtus his *niter vitriolate.* Amongſt external things, Saccarum *Saturni*, a Cerote of *Saunders*, oyle of *green olives.* The mixture compounded *of the Water Lillies, henbane, the flowers of white lillies, plantane, Red Roſes*, each one ounce and an half. *Salt of Saturne, Camphure diſſolved* in ſpirits of wine, each one ſcruple: *Sal Prunella* half a ſcruple, adding a little of *Tragacanth*, and applyed to the right hypochondry, &c. Or *with matter*, which *is known* by this, that a bitterneſs of the mouth, a loathing of meat, and a vehement thirſt doth trouble them, and a feaver either an intermitting tertian, or a ſlow feaver, or erratick, doth vex them, by which the body by degrees is dryed up. That choler doth break forth by vomiting and ſtoole, firſt of al thin and pale, afterwards thick, truly yellow and ſtinking. It *ariſeth* from choler, either generated in it, or ſent from the bladder of gal laboring of obſtruction, or from ſome other part. It is *cured*, 1. By *revulſion*, by opening a veine in the arme, by ſcarifying, or friction, if the humors flow from ſome other part. 2. *By attraction*, by Succories cheifly, if the humors be already flowed thither. 3. *By evacuation*, either *by the ſtool*, where ſyrup of *Roſes*, of the *Leaves of Rubarb* and *tamarinds* take place, or by *urine*, where *whey, graſs roots, barley take place.* 4. *By ſtrengthening of the liver* that it collect no more.

II. Another *is cold*, and that either is *ſimple and without matter*, which *is known* by this, that there is a greater deſire of meat, no thirſt, a voiding of flegmatick, crude, and oftentimes of liquid matter, there is generated a watry and crude blood. *'Tis hardly cured* becauſe 'tis more repugnant to the nature and office of the liver; and 'tis cured *by things that alter*, amongſt which the cheife are. The roots *of burnet, the true acorus.* The leaves of *Wormwood, Agrimony, Centaury the leſs, Betony, Maidenhair, Raiſons, Cloves, Nutmeg, Cinnamon, Agallochus* of compounds, *Mynſichtus* his tincture of *Caſſia lignea, treacle, mithridate*, Mynſichtus *his aromatical* rowles. *Cratoes* confection of *Rhubarb.* The pouders of *Diamargartium calidum. Or with matter*, which is *known* from the foregoing of the like cauſes, the white color of the face and whol body, a ſoft habit of body, flegmatick ſtools, a heavineſs in the right hypochondry. *The riſe* and *cure* do follow other diſtempers. The *eſſence of Mars* is good, the preparation of which ſee in *Hartman.*

III. Another is *moiſt*, which is *known* by the ſoft pulſe, watry blood, liquid excrement, thick urine. The cure is performed by dryers.

IV. Another is *dry*, which poſſeſſes in a contrary manner, neither is there any things ſingular concerning its cure; for the moſt part it troubles in compoſition.

Article, 2. *Of the obſtruction of the Liver.*

The obſtruction of the Liver, *is a narrowneſs of the veſſels in the liver, cauſed by a matter filling up their cavities, and hindring the diſtribution of the nouriſhment.*

The ſigns are heavy and obtuſe pain in the right part of the hypochondries, which after the taking of meat is increaſed, eſpecially if ſoon after meat, ſome violent exerciſe be undertaken. The excrements varying from their natural manner, oftentimes more liquid and copious, becauſe the chyle is not received. A change of the color eſpecially in the face, by reaſon that the ſanguification and diſtribution are hurt, &c. But it is *frequent* that a veine from the porta diſperſed through the ſubſtance of the liver in moſt fine branches is obliterated; and it hath others no leſs ſmal from the Vena Cava, through al which the nouriſhment ought to be produced and carried.

The *Cauſe*, is the matter filling up the cavities of the veſſels, or alſo the very ſubſtance of the liver, whether it be generated there, its action being hurt, either by a diſtemper, or by ſome external error: or whether it flow from elſewhere, either by reaſon of its attraction, or reception.

The Cure is difficult, both by reaſon of the narrowneſs of the veins in the liver, and becauſe more diſeaſes do follow upon this. *It is performed by things that open obſtructions*, amongſt which are commended, *Riverius* his extract of *pils of amoniacum*, made *of gum amoniacum*, diſſolved *in Vineger of ſquills*, three drams; *the ſpecies* of *hiera picra* one dram and half; *crude aloes* four ſcruples; *Myrrh* one ſcruple; *Saffron* ſix grains; With *Syrup of Wormwood*, Quercetans *Pilulæ tartareæ*, reformed by *Sennertus. Tinctura Martis* whoſe deſcription is in *Petreus*, from one ounce to two three and more; *Deodates* pouder compounded of *the ſpecies of diarrhodon, Diatragacanth*, each two drams; *Agrimony, Madder Roots, Ferne poudred, Sorrel, Purſlane ſeeds*, each one dram; *Magiſtral of pearles, Corralls, Crocus Martis made without corroſives, Crocus Martis*

prepared by oyl of sulfer, each foure scruples, with sugar-candy as much as is sufficint given one dram, the former tincture being drank after it. Pils *of steele*. The decoction of the *whitest tartar* mundefied and poudered one pound, made with foure ounces of *crude steel* and two gallons of spring water, and given two ounces in opening broth. *Penotus* his *opening* spirit &c. In the *cure* these things come worth observation. 1. That universals must be premised before particulars and topicks. 2. That medicines ought not to be given to drink but a long while after meat, least they carry with them crude humors to the liver. 3. Astringents must be added to mollifiers, as spicknard, burnt Ivory, that the tone of the liver may be preserved. 4. That things attenuating, discussing and resolving ought to be moderate, least the thinner parts discussed, the thicker doth remaine. 5. That we use sweet things, not as meats but as sauces. 6. The medicines must be given liquid, or finely poudered. 7. Topicks must never be applied actually cold. 8. After the use of steel-medecines the body must be stirred; unless black excrements do follow we must abstaine from them.

The *Differences* of this *obstruction* are various.

I. One is lately, which is the easier cleared. Another *inveterate*, which causeth putrefaction and a Feaver, and produceth a jaundice, schirus, and dropsie.

II. One is in the *hollow part* of the liver, which is *known* from hence, that nothing is perceived outwardly by reason that the part lurketh deep, the stomach is drawn into consent, from whence is loathing of meat, nauseousness, vomiting, thirst, liquid excrements. *It must be cured* by things that empty by the stool.

Another in the *gibbous part, which is known* from hence, that the belly prest on that place doth resist the midrif, especially because the liver is joyned to it; the excrements of the belly appeare bloody by reason of the light change of the chyle into blood. The *Cure* is the easier, by reason of the penetration of medicines, and the emptying of the obstructing matter by a larger passage, we must act cheifly by things that move urine.

III. One is from *Blood* either *pure*, which is remedyed only by the opening of the basilica in the right arme; or *cholerick hot* and which is joyned with paine, being a long time preternaturally imprisoned in the liver, and not timely purged it grows wonderfully thick. Or *flegmatick*, viscous, and thick, which ariseth from gross meats, viscous, too much by baths, or motion, forced or carried into the smal veins: sometimes it fals from the brain into the stomach, by and by passing through, by degrees it penetrates with the nourishment into the smal veins of the Liver.

Another from *Winde* that is grosse, imprisoned under its coate, or sticking in the veins, which is *known* from hence, that the paine is greater, but not continual, there is such a great tumor of the right hypochondry, that it fils up the whole hypochondry, so that the ends of the ribs cannot be perceived: yet tis without heavinesse, and being prest it yeelds, it makes no murmuring, and gives no suspition of an impostumation lurking there. It *ariseth* either from *windy meats*, from which they must beware; or from the *weakness of the liver* not able to overcome the matter; & then the matter prepared must be emptied; or 'tis sent from the *neighboring parts* and the whole body, especially in flegmatick Feavers. The *Cure* in general requires carminatives, of which in the dropsie.

Article. III. *Of an inflamation of the Liver.*

An inflamation of the liver, is a hot tumor of the same arising from blood impacted and putrefying in the substance of the Liver, *afflicting with a continual feaver, a heavy paine, and sence of a weight in the right hypochondry.*

The CIGNS are a sence of *heavinesse* in the right hypochondry, from the membranes, with which the liver is joyned in some to the bastard ribbs. A *tumor* in the same, which appeares greater the sick lying on his left side, less the body being bowed to the right, and the liver sliding under the bastard ribbs: *A paine* reaching from the throat to the bastard ribbs, by reason of the heape of matter restrained, which puls the membrane that lines the Breast. A *Feaver* whose vehemency follows the greatness of the inflamation, and at night is exasperated the inflamation growing hot. *A dry cough* by intervals by reason of the vapors raised up to the lungs, and afflicting the midriffe by compression. *A Difficulty of breathing* because the feaver brings a greater necessity of cooling, uneasie lying, both on the right side, because the liver is prest by the stomach and guts, and on the left, because the liver hanging the membranes are retcht. A swift and unequal pulse, by reason of the necessity

ceſſity of cooling increaſed by the hot diſtemper, &c. It *is diſtinguiſhed* from an inflamation of the muſcles of the belly, and pleura, by the ſigns mentioned there.

The CAUSE is blood impacted and putrefied, which *either* is attracted, *or* tranſmitted, *or* flows thither; *either* by default of its quallity, viz. its thinneſs, heat, and accrimony; *or* by reaſon of its quantity and abundance; *or* by the impulſe of external cauſes, as while hot medicines are applied to the ſtomach.

The CURE *is difficult* becauſe a principal part is affected, and by occaſion of it, there is iminent the feare of a dropſie or conſumption. *Of little or no hope*, if the hickops follow, becauſe it is a ſigne that the liver is come to the higheſt inflamation, and ſo by communion of the nerves the mouth of the ſtomach is drawn into conſent. If a looſneſs follow, becauſe this voiding of crude matter proceeds from the weakneſs of the faculty. If a burning and continual feaver accompany it, becauſe it ſignifies that bowel is exceedingly inflamed. If it come to *Superation*, which is *known* by this, becauſe that happens after the twentieth day if nature be not weake; paines and feavers with other ſymptomes grow ſtrong; yet moſt by night: ſhakings aſſail in no order, and with no reaſon, which are attended mith an exacerbation of heat: becauſe from the impoſtumation there ariſeth a ſordid ulcer, becauſe tis perpetually waſht with the nouriſhment, and filth of humors; and whereas the ſolid ſubſtance of the liver as being ſpermatical cannot be repaired, tis incurable if it tend to *induration*, which is *known* by this, becauſe after forty dayes the feaver and paine doe falſely vaniſh, without any ſenſible evaccuation, the tumor and hardneſs remains in its place with dejection of appetite, and a dayly waſting of the body. *Of ſome hopes*, if there be ground it wil reſolve, which happens from the firſt moment of its invaſion, to about the fourteenth day, and is known by the abating of the ſymptoms, and colour of the urine. *It is performed* by the ſame means with which other inflamations are cured. *Yet Obſerve.* 1. That the baſilica or median of the right arm, be preſently opened the firſt or ſecond day. 2. That the repellers ought to be gentle, leaſt that the paſſages of the liver being too much ſtraitned an obſtruction be cauſed, or a ſchirrous be produced by things too much cooling, or the quitor breathing from the inflamation be caſt back into the Liver. 3. That the ſame ought to be gently aſtringent, corrected with thoſe things which are moderatly opening and abſterſive. 4. That things actually cold muſt not be applied, unleſs there be an eriſipelas, and eminent heat. 5. The impoſtumation breaking to the kidnies, Goats whey muſt be dranke with the immulſion of the foure ſeeds. 6. The ſubſtance of the liver being cleft and eaten into, if the matter fal into the cavity of the belly, we muſt proceed to burning and inciſion of the belly; concerning which ſee authors. For diſcuſſion 'tis thought wil ſerve wel, a Cerote made *of oyle of Mercury* one dram; *dulcedinis Saturni* two drams and half; *oyl of Galbanum* half an ounce; *red wax of cinnaber* as much as is ſufficient, and mix with miſtleto of juniper, *with the juice of Colts-foote or Galbanum*, and laid on.

The *Differences* of this inflamation are ſome.

I. One is *Great*, in which al things are more vehement. Another *Smal and obſcure*, in which the liver is beſet with ſmal ſwellings and impoſtumations like to felons, with no tumor or paine of the hypochondry, there is a feaver but not much burning, with thirſt and loathing. It *is diſſolved* by a flux of blood of the ſame ſide iſſuing from the right noſtril, on the firſt ſeven dayes, ſometimes on the ninth, eleventh, very ſeldome on the fifteenth, eſpecially if the patient be under five and twenty years of age.

II. Another is in the *gibbous part* in difficulty of breathing, which *Paulus* called ſuſpirium irruptum, a cough and heavy paine preſſing the throate are more troubleſom, lying on the right ſide is more difficult, as by which the part affected is preſt; the paine by touching and preſſing growes ſharper. The urine is ſlow, which if it be alſo with content like vetches it ſignifies a colliquation. The Tumor is readily perceived. Sometimes tis prominent and conſpicuous to the Eyes. *'Tis diſſolved* by bleeding at the Noſe if it be of the ſame ſide, with good ſweats, and plenty of Urine. *Things that move Urin*, are far more profitable than purging Medicines.

Another is in the *Hollow Part*, in which nauſeouſneſs, Thirſt, loathing of meat, the Hickops, Cholerick vomitings or ſtooles are more urgent, lying down on the left ſide is greivous and painful. The Tumor is not readily obvious to the touch. 'Tis diſſolved by ſtooles Cholerick, bloody, by ſweats and vomiting. Gentle *Clyſters* may be adminiſtred,

we muſt beware of *Purgers* given by the Mouth.

III. Another is from *pure Blood*, which is called *Exquiſite*, and in which al things are more mild. Another from *mixt*, which is *Spurious*, and that either *Cholerick*, and then there is a burning Feaver, fear of a Conſumption perplexes, vomiting of ſincere Choler affects them, and ſomtimes voiding it by ſtool, which either inflicts a Diarrhy or a Dyſentery. Or *Flegmatick*, which is ſeldome, and in which we muſt add to Topick Medicines, Maſtick, ſpikenard, Wormwood, and the Oyls made of them, &c.

Article, IV. *Of a Shcirrus of the Liver.*

A Schirrus of the Liver, *is a hard Tumor of the ſame without pain, generated of a thick Humor, impacted in the ſubſtance of the Bowel, and hardned.*

The SIGNS are a Tumor of the *left* Hypochondry, which is diſcoverd by the touch, if the Belly be ſlender and void of Fat, and is eaſier obſerved the Patient ſtanding upright, or bowing to the right ſide, than lying on his back; but tis bounded by the Scituation and Figure of the Liver, and lying on the left ſide, with its bulk it lies on the Stomach and midriffe. An obſcure pain, becauſe the neighbouring parts endewed with ſenſe are compreſt by the Tumor of the Liver, &c.

The CAUSE is explained in the definition, but it doth not ſuddenly Cauſe a Tumor but by little and little, for firſt it ſtuffs up the ſmal Veins of the Liver, then being increaſed it redounds to the whol ſubſtance of the bowel, afterwards being much more fully heaped up, it diſtends the Liver into a vaſt bulk, that it appeares ſwelled, leaſt of al being dryed, and the thin part diſſipated by force of the heat, al the reſt grows hard.

The CURE which is of little Hopes, is orderd. 1. By *Lenitive* preparatives and emptyers, as was ſaid in obſtruction. 2. By *things Emollient* and diſcuſſive, with moderate aſtringents, leſt from thoſe alone there may ariſe putrefaction and a Cancer, from theſe alone the danger of a greater induration. There are commended, *Labdanum* with *Indian Balſome and Wax*, the Plaiſter *of Hemlock and mandrakes with Ammoniacum. Fabricius Hildanus* his Oyntment *of Hemlock, &c.* 3. *By things that open obſtructions*, among which excels *Tartar Vitriolate* with Raiſons, Cinnamon, and the Leaves of Agrimony. Barcoletus *his Tartar Tartarized*, which moves by Urin, &c.

As Concerning the *Differences.*

I. One is *Beginning* joynd with pain, which is called *Spurious*, and it yeelds to cure. Another *Confirmed, Exquiſite* without pain, which cauſeth a Dropſie, and cannot be Cured.

II. One is from a *Cholerick matter*, which is known by this, that Cauſes heaping up a Cholerick juyce went before, the ſigns of Choler abounding and a hot liver are preſent. It follows a Jaundice, and hath a ſlow Feaver its Companion, and precipitates into a dropſie which is called Aſcites.

Another is from *a Flegmatick matter*, in which Cauſes heaping up a thick Juyce went before, there are preſent the ſignes of a Liver cooled, a Cachexy and univerſal Dropſie is Cauſed. The diſeaſe laſts long without any diſcommodity, and if it be turnd to a dropſie, firſt of al it paſſes into a Cachexy, then into a univerſal dropſie.

Another is from a *Melancholly matter*, the ſigns of which alſo wil be preſent.

III. One is in the *Gibbous part*, where ſome good is done by Topick means. Another in the *hollow part*, in which alſo internal remedies ought to be adminiſtred.

Hither belongs *A Tumor of the Liver*, without a Schirrus, which *is known* by this, that it grows in a ſhort time, is leſs reſiſting, the Fingers cannot be thruſt under the ends of the Ribs. It poſſeſſeth only the Membrane that compaſſeth the Liver, yet ſomtimes it fils up the whol Hypochondry. It *ariſeth either* from a viſcous Humor, *either* ſprung from meats of that Nature, *or* made ſuch by cold alteratives given about the time of Evacuation. *Or* from a thin crudity ariſing from meats, drink, and other things inducing cold: or from a thin wind. The *Cure* is perfected by things opening and emptying.

Article, V. *Of the Wounds and Ulcers of the Liver.*

The *Wounds of the* Liver, which in Aged and ill habited bodies, are very *dangerous*, but by reaſon of the long effuſion of blood are *deadly*, are either from *external cauſes*, which are Cured by things aſtringent and agglutinative, (red Roſes dryed are commended) or from *a Contuſion*, which hath Joyned with it a vomiting

a vomiting or dejections by ſtool or Urin with blood, it is more dangerous than a wound, and degenerates into an impoſtumation. In the *Cure* it requires. 1. The opening of a Vein in the Arme. 2. Potions Compounded of aſtringent things. 3. The Flux of blood being ſtopt, the diſſolution of congealed blood by its Medicines.

An Ulcer of the Liver is a corroſion of the ſame from matter or juyce.

The SIGNS are an ulcerous pain in the right Hypochondry, a Cough, a Jaundice color of the Face, a voiding of putrid, ſanious and bloody things by the ſtool or Urin, an Atrophy, becauſe there is neither blood made, nor the man nouriſht.

The CAUSES are, whatſoever things corrode the ſubſtance of the Liver, of which ſhal be treated in the Differences.

The CURE muſt not be neglected, although it be of *little Hopes*, for it grows foul by a perpetual filth, becauſe tis continually waſht with the nouriſhment; 'tis ordered as in other Ulcers.

The *Differences* of the Ulcers of the Liver are various.

I. One is in the *Superficies*, which is leſs dangerous; another in the *Subſtance*, which is deadly, becauſe a ſpermatical part cannot be Regenerated.

II. One is in the *Gibbous Part*, which *is known* by purulent Urins without the ſigns of an exulceration in the bladder, and Kidneys, by difficult breathing, by pain of the midriff. Another in the *hollow part*, which is *known* by the bloody and ſomtimes purulent ſtooles, by the pain of the Guts by reaſon of the acrimony of the matter, by the ſenſe of pricking and heavineſs about the Liver.

III. One is which *follows an inflamation*, which hath ended in an impoſtumation, and this is dangerous, eſpecially if the matter be contained in the ſubſtance of the Liver. Another is, which ariſeth from *ſharp and corroding Juyces*, which *is known* from hence, that it creeps on by degrees, the ſtrength not impaired, a Feaver ariſeth in the progreſs, obſerving no type, which at length ends in a Hectick. Loathing of meat afflicts them, eſpecially of fleſh, &c. *It ariſeth* from the default of corrupt or putrefying nouriſhments, generous Wine heats the bowel, and dries it, and heaps up a certain putrid clammineſs and matter.

Chap. 4. *Of the Symptomes of the Liver.*

Title, I. *Of the weakneſs of the Liver.*

THe Symptomes of the Liver are, *Weakneſs, Cachexy, a Dropſie, Jaundice, and atrophy.*

The weakneſs of the Liver, or atonia, is a hurt of the faculties of the ſame induced by its Cauſes.

The SIGNS ought to be taken from the conſideration of the Excrements of the Belly, of the urin, and color of the whol body; as ſhal be manifeſt in the differences.

The Cauſes hurting the faculties of the liver, are diſeaſes of diſtemper, whether it be hot or cold; to which is added an exrernal error. viz. when either the chyle is not rightly elaborated in the ſtomach, or being wel elaborated, ſomewhat vitious is mixt with it, &c.

The Cure, ought to be perfected with things that ſtrengthen the liver, and are appropriate to it, as are *the liver of a wolfe, a calfes, of hens, ſnailes, raiſons &c.*

As concerning the Differences.

One is by reaſon of the *Sanguifying faculty*, which either is hurt by a *cold diſtemper*, or the defect of natural heat; and then the excrements of the belly are like to the waſhings of meat new killed, which the cold growing more intenſe do ceaſe: crudities ariſe, with which the feet firſt, and then the other parts abound, becauſe the veins do ſuffer with the liver ill affected, as being their original. For the cure of this ſerves, *Rupert Cranesbil bruiſed, a lie of the pruning of vines* with wine, &c. Or from *a hot diſtemper*, in which the chyle is burnt as it were, the excrements are like to the dreggs of blood &c.

Another is by reaſon of the *attractive faculty*,

ty, and then moist things flow down by the stool like creame, although there be no fault in the stomach, no obstruction of the mesentery.

Another is by reason of the *retentive faculty*, and then is rendered by stoole things like to the washing of flesh new killed, yet seldome moist and mattery. &c.

Article, 2. *Of a Cachexy.*

A Cachexy is a diffusion of the whol body into a watry and swelled softneß by default of nourishment.

The Subject is the whole body, but those parts especially which are obvious to the eyes, as the skin and the muscles.

The signs are a color, by reason of the flegmatickness of the blood, sometimes white, by reason of the mixture of cholor or melancholly, sometimes livid or leaden. A tumor with heavineſs and sluggishness, especially in the feet and hands, by reason of the descent of serous humors, and their distance from the heart: and also about the eyes in the face, cheeks, eybrows, because those parts by their laxness do easily receive serous humors.

The Cause is the fault of nutrition. For though that which is put to the parts, doth concrete and adhere, yet by reason of the too great plenty of crudities 'tis not assimilated. To wit, *the blood is flegmatick, crude and serous*; and that is generated such, either by reason of *impure nourishments*, corrupt, and producing abundance of serum. Or by reason of the *bowels*, which either are *impure*, either from a Scirrhus as hath been said, *or* from the effusion of a corrupt humor, as hath been observed in a suppression of the courses, that purulent matter from the obstruction of the ureters, returning into the veins, the blood being infected, hath infected the whol habit of the body. *Or* from their corrupt substance; for so vitious and corrupt blood is brought forth, and carried out to every part, and there concreting. It leaves a vitiated substance instead of a good; hence the Cachexy is various according to the nature of the blood; The flegmatick affects virgins, and threatens a universal dropsy. Or they are *weak*, because they have been hurt either by the continuance of diseases, or by too much evacuations, or by long imprisonment, &c.

In *the Cure* we must diligently observe, 1. That regard be had to those diseases from which the cachexy proceeds, 2. If humors abound they must be emptyed especially with things that purge water, 3. To open obstructions is commended the *cachectick pouder* of steele prepared one part, Cassia lignea three parts, of the whitest sugar four, the pouder of young geese turds. 4. Sweats are happily moved with *antimony diaphoretick*, 5. The Cachexy of virgins is driven away by the distilled *water of Walnutts* fresh cut into thin slices, steeped in white wine twenty four hours, sweetened with Canary sack, and exposed some few days to the sun, and taken three ounces weight, using exercise after it.

Article. 3. *Of the dropsy in general.*

The dropsy is considerd either *in General*, or *in special.*

The dropsy considered in general, is a tumor of the body, or of part of it, preternatural, arising from a watrish and serous humor, or a collection of wind.

The Signs of it are, a swelling and puffing up of the body, a heavineſs, difficulty of breathing, an extensive pain in the right or left hypochondry, a filthy color of the face betwixt green and whitish, or declining to a yellowish or lead color; little urine and deep dyed, continuall thirst, partly from the defect of natural and alimental moisture, partly from the ascent of hot salt vapors drying up the mouth of the stomach, partly by reason of the little aire drawn in, whence the heart and lungs also boyl with thirst. *But concerning the tumor of the feet*, we must note, 1. That they cheifly swel after excercise of the body and in the eveining, because the wateriſh humor by its own weight tends downwards. 2. In the night concoction being finisht the swelling bates, by reason of the increase of the heat, the heat of the bed helping somwhat too. 3. They do often swel in those that are recovering either from acute diseases, or of long continuance, because the languishing heat cannot concoct so much, as the patient receives, and the crude and serous part which ariseth from thence, flyes to the feet without any eminent danger, if it be timely taken care of.

The Cause, is the fault of nutrition, proceeding from a cold distemper of the liver, which is induced *either* by the extention of heat either immediatly by the six non natural things or mediately, by diseases of the whol, or of other parts. Or by the *dissolution* or dissipation of it either from too much heat, or from other causes.

The cure is not *difficult*, if the dropsy be of late. *Difficult* if after another disease it seize upon a body

a body weakned. If it be inveterate. We muſt obſerve in it. 1. That we begin with gentle things. 2. Becauſe the diſeaſe is chronical, remedies muſt be uſed the longer time, 3. Leaſt nature be accuſtomed to them, they muſt be varied. 4. Somtimes for a while we muſt forbear, leaſt nature be oppreſt. See the manner in the ſpecies.

Article, 4. *Of an Aſcites.*

The dropſie conſidered in *Specy* is either an *Aſcites*, or *Tympany*, or *Anaſarca*.

An Aſcites is a diſtenſion of the belly from a watry, ſerous, and Salt Humor, poured forth into its Capacity, by default of the Liver, Spleen and Kidneys, with a Tumor of the Feet, Thighs, and ſomtimes of the Cod.

The SIGNS are a ſwelling of the Belly, which begins from the lower parts as being moſt diſtant from the heart the fountaine of heat, a ſlenderneſs of the upper parts, the belly being ſtruck a hoarſe ſound as from a bladder half ful: the ſick turning from ſide to ſide a noiſe like the Murmuring or waving of Water. The Diſeaſe growing ſtrong there follows a difficulty of breathing by reaſon of the abundance of water lying on the midriffe. A Cough ſomtimes either from the compreſſion of the midriffe, or from the peircing of the Water into the breaſt, from whence ſuffocation in a ſhort time enſues, the impreſſion of the Fingers Leaves behind it a manifeſt mark in the fleſh.

The CAUSE is a watry and ſerous Humor, whence Dropſie people piſſe little; they that piſſe much after great draufts, are not taken with a Dropſie. And ſome by abſtinence from drink have been reſtored to health. That humor is *collected* if you conſider *the place* between the ſtomach and kidnyes, through which otherwiſe naturally the ſerum is wont to be emptyed: eſpecially in the ſpleen veine, the meſaraick, and perhaps in the branches of the ſpleen artery, and the roots of thoſe veins about the hollow parts of the bowels, gaſtrical and epiploical. Whence after quartanes and long continued feavers whoſe cauſe is in the meſaraick veins, a dropſy follows. *If the cauſe*, 'tis collected from too much drink and moiſt meats, by the acceſſion of the fault of the bowells which either attract, or contein the ſerum, by which it comes to paſs, that it ſtays in the belly, and afterwards is poured forth into its cavity. But it *is poured forth* into the capacity of the belly, or that ſpace which is between the peritoneum, the caule and the guts, cheifly by the epiploick and gaſtro epiploick branches: yet ſo as neither the *caul*, which hath veins only from the vena porta, and can eaſily receive the burthen of the meſentary and ſpleen; nor the *pancreas*, which in its middle hath a ſplenicke veine paſſing to the ſpleen with the left branch of the celiacal artery, are free from fault. The humor *poured forth*, although it be cold, yet becauſe it contains many ſalt parts, and borrows heat from the neighboring parts, 'tis hot alſo, but by continuance of time it putrefies, from whence is raiſed a corruption of the bowels, a Feaver, thirſt, whiles the vapors ſtrike the mouth of the ſtomach.

The Cure is *of better hopes* if the patient be young and ſtrong. If a ſlave who is able to endure hunger, thirſt, and other troubles, if more moiſture be voided by urine, than is taken; if the water which is in the veins flow to the belly or ſtool, the bowels unhurt. Of none almoſt if it come from an acute diſeaſe, becauſe the bowels, the radical moiſture being waiſted do contract a cold and hectick diſtemper which cannot be corrected. If the water break forth into the caul, and that be corrupted. If it happen to the ſplenetick after a longe dyſentery, becauſe by the paſſing of the evil humor, the ſymmetry of the innate heat is periſht in the guts and bowels. If a cough come upon it becauſe it ſhews that the watery moiſture is ſo much increaſed, that it penetrates into the breaſt, and doth already poſſeſs the rough arteries. If impoſtumations or ſpots break forth in the thighs, if being eaſed by remedies 'tis wholly renewed again, becauſe it ſignifies the bowels are corrupt, and poſſeſt either with a ſchirrus, or conſumption and hectick diſtemper. If it ariſe from a colliquation, becauſe al the ſtrength is diſſolved, and the body languiſheth. *'Tis perfected*, 1. *By the emptying of the water poured into the belly*, premiſing a preparation of thick humors, if they intervene. But it is emptyed, 1. *By* the *Stool*, by medicines that purge water; *the gentler, as mechoacan, Jallop*, which may be given to one ſcruple and an half; the Juice of *Flowerdeluce* clarified, which may be given to three drams with ſyrup of endive ſix drams; Parſly water half an ounce; and the pouder of diarrhodon Abbatis one ſcruple; *With peach flowers* dryed and boyled in wine. The *ſtronger*, as *gambugia* which is given from ſix grains to fifteen (ſee *Reudenius* concerning it.) *Rulandus* his extract of *eſula, trochiſkes of Alhandal*, or the ſame authors *Spiritus vitæ aureus*. The extract of *elateri-*

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um moſt commended by *Maſſaria*, from one grain to three grains. The magiſtral, or Cryſtal *Lunæ of Tentzelius*, given chiefly at the Wain of the Moon from four grains to five. *Mercurius vitæ* fixt by longe digeſtion, *Crocus Metallorum Abſinthiacus* of Mynſichtus, the ſame authors *Tartarus Emeticus*, &c. All which muſt be given on even dayes, not too often nor the bowels too much corrupted, after the uſe of them we muſt ſee whether they bear it wel, and the bowels muſt alwaies be ſtrengthened. Concerning a Paracentheſis or tapping, ſee Authors. 2. *By diuretick*s, which ought to follow purgers of water, amongſt which beare the palme, the pouder of *earth worms* given one dram weight wth the decoction of aſparagus or fennel. The ſalt *of aſh ſalinated* as *Billichius* delivers. Wine twice or thrice ſtrained through the aſhes of *bean ſtraw* burnt, ſix handfuls, the tops of broome, Juniper, each two handfulls and a halfe, woodbine one handful and a half, and given ſix ounces weight. 3. *By ſwaeters and dryers*, as are the Root of ſwallow wort ſteept and boyled in Wine. *Antimony Diaphoretick*, the decoction of *Saſſafras wood*. *Treacle* in wine the quantity of a ſmal Walnut with a few drops of Oyl of Sulphur, *Lapis Serpentis*, concerning which ſee Joel. Outwardly, *Mynſichtus his Plaiſter de Cineribus*. 2. *By ſtrengthning of the parts*, that the Water be not collected again; here are good, the Trochiskes *of Wormwood*, *Paracelſus his Diacubebæ*, &c. 3. by diet, which ſee in Anthors.

The *Differences* are taken from the parts, by whoſe default the ſerum is collected.

One is by default of *the Kidneys* that do not attract the ſerum, either becauſe they are *Exulcerated*, and then ſome matter appears in the urin, the piſs is much leſs than in other Cauſes: or becauſe *the Ureters are broken*, and then it ariſeth ſuddainly. That comes to paſs for the moſt part in expelling the ſtone.

Another is by default of *the Spleen*, which when as it is as it were ſpungy, it ought to draw the water from the ſtomach by the vas breve, that office being delegated to it by Nature; which may be carried from hence by the ſplenick Artery into the Cœliacal, by and by from the trunk of the Aorta by the emulgent Arteries to the veins: It doth that either *too greedily* by reaſon of an inflamation riſen in the Veins, which *is known* by a pertinatious flux of the belly, which doth neither take away the ſwelling of the belly, nor the pain by reaſon of a Hectical diſtemper, and either from the weakneſs of the veins not attracting the nouriſhment, or from the corruption of the ſame and continual voiding of Cholerick Excrements, it afflicts with a heat in the jejunum gut and meſentery. Or *it neglects it altogether*, *either* by reaſon of the obſtruction of the paſſages tending to it, cauſed by thick humors. *Or* by reaſon of the diſſipation of heat, from a ſchirrous, too much emptying, the uſe of hot things, the diſtemper of the neighbouring parts, acute Diſeaſes. *Or* by reaſon of the ſuffocation of heat by the too much uſe of cold things, from the ſuppreſſion of the Courſes, from ſuperfluous Evacuations, &c.

Another is by default of *the Liver*, either for the ſame cauſes not attracting the ſerum, or retaining it: or by reaſon of the ſame inflamation too much attracting; and then there is a deſire of coughing; the Excrements are few and dry, by reaſon the ſerous Humor is ſent into the belly, and the reſt is burnt up by the heat of the Liver.

Article, V. *Of a Tympany, and Anaſarca.*

A Tympany is a diſtenſion of the belly from much wind, raiſed up either by a weak, or burning heat, contained within its Capacity.

It is called alſo *a dry dropſie*, although for the moſt part 'tis joyned with Water.

The SIGNS are theſe, the Skin appears retcht like the skin of a drum, and ſtruck upon gives the ſound of a Drum, the Navel hangs forth much. The puffing up of the belly is greater, but the heavineſs leſs. Compreſſing of it doth not leave behinde it ſo conſpicuous a mark, but the hollow print is preſently filled up, belching and Farts often break out, noiſe and rumblings Obmurmurate. It *muſt be diſtinguiſhed from the diſtenſion of the breaſt after wounds*, which doth poſſeſs the breaſt, back, Loins, Cod, Arms, Neck, nay ſomtimes the whol habit. It proceeds from hence, that the Air which ought to paſs ſtreit through the mouth to the Lungs, and from the Lungs again to be breathed forth through the mouth, a way being open between two Muſcles, or the Muſcles and the skin, 'tis blown from the wound as from a pair of bellows into the ſpace between the skin & muſcles: and hence furthermore it penetrates into the neighbouring parts.

The CAUSE is wind, which if you conſider

ſider, *its riſe* ſpringeth either from a weak heat, or from too much and torrefying, which reſolves into Vapors that which is ſubtile being violently ſtirred, as is ſeen in black choler lying under the ſtomach. If *the place*, 'tis neither in the ſtomach, becauſe it would be caſt forth by belching, nor in the Guts, becauſe it would be voided by ſtool, but for the moſt part 'tis generated between the coates of the meſentery and Guts. For in the dry Dropſie, the torments afflict about the Navel, greiſes and pains of the Loyns: but the meſentery forward is united to the ſmal Guts, backward to the vertebres of the Loins from which it ſprings, from whence is this diſtention; yet it is found alſo in the Cavity of the Guts, and it inſinuates it ſelf thither through the Orifices of the Meſaraick Veins.

The CURE requires. I. *The bringing forth of the matter* producing the Wind, where takes place, *Fardinandus* his *Antipneumatical wine*, concerning which in the Hiſtory, 38. The Coagulated *Spirit of Salt*, with Wormwood water, and ſpirit of Elder. 2. *The Diſcuſſion of the wind, outwardly* by a great Cupping-Glaſs applied to the Belly; by frictions with *Garlick* bruiſed and boyled in generous wine; by a fomentation of *a Boyes Urin, and Lapis Prunellæ*, concerning which ſee *Hartman*. *Inwardly* by the Decoction of *Ebony wood*, the ſpirit of *Guajcum*, the Arcanum of *Cummin and Carrawais*, the liquor of *the flowers of Mullein*, &c. 3. *The correcting of the hot diſtemper of the Bowels* if there be any; *the ſtrengthning*, if it be weak.

II. *An Anaſarca or Hypoſarkidion, and Leucophlegmaty, is an equal increaſe of the bulk of the Body preternaturally throughout the whol body, ariſing from default of the nouriſhment.*

The SIGNS are an increaſe of the Corporal bulk, greater than in a Cachexy, equal through the whol body, ſo that the feet and Legs ſwel in the begining, a ſoftneſs of the body, a Laxneſs, Paleneſs, and weakneſs upon the leaſt labor, a continual Feaver, ſlow, with a pulſ ſmal, oft, and unequal, the Urine white, thin crude, &c.

The CAUSE is the fault of the nouriſhment, which by reaſon of the immoderate coldneſs of the Liver and Veins (of which we ſpake in diſtempers) is Flegmatick and crude; nay the body is ſpred over with a clammy and congealed water, and though the nouriſhment doth both concrete, and adhere to the part that is to be nourſhed, yet 'tis not aſſimilated.

The CURE is *Eaſier* than in others, becauſe a Flegmatick Humor, comes neerer to the Nature of blood, than a ſerous; beſides a ſtrong diarrhy comming at the beginning while the ſtrength is firme, the Diſeaſe is Cured. *'Tis Performed.* 1. *By emptying the watry matter*, diſperſed throughout the body, both by things that Evacuate by the lower Parts, amongſt which is commended the extract or Salt of *Hedg Hyſſop* mixt with Rhubarb. And by vomiters, which ſee elſe where: and by bleeding, if it ariſe from a Plethorick Cauſe or retaining the blood, leaſt by the plenty of the cold Humor the heat be overwhelmed, which muſt be done at the beginning. And by ſweaters, as the Decoction of ſwallow wort uſed, eſpecially in a Laconick Bath, before you enter into it, ſome of *Weckerus his water* is wel adminiſtred, (concerning which ſee *Hartman*) 2. *By ſtrengthning of the Bowels*, the Liver eſpecially and ſtomach, of which in their places. *Fardinandus* commends the covering of the Patient in a heap of Wheat for to dry up the matter.

Article, VI. *Of the Jaundice.*

The Jaundice is either *Yellow*, or *Black*, of which ſhal be ſpoken in the Symptomes of the Spleen.

The Yellow Jaundice is an effuſion of a Yellow or greeniſh Humor into the habit of the Body proceeding from its Cauſes.

'Tis called alſo from the Name of a ſmal bird *Galgulus*, from the variety of colors in the Rain-bow, *Arquatus*, and becauſe 'tis tenderly handled at Court, *Regius*, or becauſe 'tis beleeved to be Cured with Honey and wine a Princely drink.

The SIGNS of it are, a yellowneſs of the whol body, a Citron or pale green, which is obſerved in the white of the Eye, and at its inner Angle, where the great Veins are. A diſtenſion of the Veins under the Tongue; a pain of the right Hypochondry, or a hardneſs too. Bitterneſs of the ſpittle, with Cholerick Vomiting, the Hickops, and pain in the Head.

The CAUSE is a Humor of the ſame color, which is poured forth into the habit of the Body, for the Cauſes to be mentioned in the *Differences*.

The CURE varies according of the Nature

of the Differences. Yet it *respects* two things. 1. *The Cause*, which must be removed. 2. *The Symptomes*, which must be taken away, after universals have been premised. For the Face and Eyes is commended, the fume from *hot Vineger* in which Rosemary hath been boyled. *The Specificks* are, the extract of *Columbine*, and *Celandine*, which with a little Bezoar is given to the rich. An Emulsion of *Columbine Seeds* with the distilled Water of the same, for the poorer sort, the pouder of *Earth worms*, three or four live Lice in a poched Eg, if we beleeve *Zacutus*, which is a most sordid medicine. *A live Moth* laid on the Navel til it die. *A live Spider*, in a Nut shel hung about the Neck, placed to the pit of the heart, til it die. Amongst *Magick things* are reckoned the Patients bepissing of *Nettles*, Cloths dipped in his Urin and exposed to the Air, and many other things; concerning which see *Petræus*.

The *Differences* are taken from the Causes.

One is from those things *that generate plenty of choler*, which are either *External*, as sweet things, hot meats and drinks. Poysons especially, as the Gal of a Leopard, the biting of Vipers and venenate things; and then we must act with *things Alexipharmacal*, peculiarly opposite to the Nature of the Poyson, in which also we must have regard to the manifest qualities. Or *Internal*, as are. 1. *A hot and dry distemper of the Liver*, and then the Urine is vehemently colord and thick, the Excrements of the Belly are dyed of a Saffron color, the Feet and hands are hot. 2. *An Inflamation and Impostumation* of the same; of which formerly.

Another is from *those things* which do hinder *the puresying of the blood and the separation and Exclusion of Choler*, as are, 1. *The compression* of the bladder of Gal by a Schirrus of the Liver, or some other Tumor, which see above. 2. *The Obstruction* of the same from thick flegm, plenty of Choler, stones and other Causes, which is *either* in the passage reaching to the Liver by which it is attracted, and then the Excrements are dyed, *or* in that tending to the *Duodenum*, by which 'tis cast forth, and *then* the Excrements are white; *or* it comes to pass by default of the Liver, and then the right Hypochondry is distended; if it become hard it foretels a Dropsie, *or* by default of the bladder it self, and *then* it invades suddainly, the belly is slow to stool, the Excrements because they are not dyed, look white. *It is cured*, 1. *With things that open obstructions*, amongst which prevails, *Dodder of Vetches*, the Decoction of *the Strawberry Plant* with horehound and Raysons, the Juyce of *Nettle Roots* bruised in wine with Saffron, *Young Geese Dung* gathered in the Spring, dryed and given one dram weight. *Cremor Tartar* diluted with steeled Wine, spirit of *Tartar*, &c. 2. *With Purgers* given by course with openers; amongst which *Rhubarb and Hiera Picra* are the best.

Another is *from those things which do suddenly expel choler from the inward parts to the Circumference of the Body*, which cheifly comes to pass in acute Feavers, in which *either* it is cast forth critically, and then there went before Signs of coction, and the Disease is Cured. *Or* Symptomatically, by reason of its plenty and Acrimony, and *then* it happens before the seaventh day. If it be *without a coldness*, 'tis thought to be *either* from a weakness of Nature, *or* from an Inflamation: if *with a coldness* the Feaverish matter is cast forth from the Bowels and veins to the Skin. *In the Cure* we must have respect both to the Feaver, and the Liver.

Article, VII. *Of an Atrophy.*

An Atrophy is a drying and wasting of the whol body arising from the disappointment of its nourishment.

The Subject is the whol body, especially in relation to the soft Parts, the Fat and Flesh; the harder Parts indeed may be dryed; but they cannot be so diminisht, that from thence the whol body should decrease.

There is no need of SIGNS, whenas the affect is apparent to the Eye.

The CAUSE is the disappointing of nourishment, which proceeds *either* by default of the nourishment, when that either failes, that it is not taken, not attracted, not put to, is discussed, &c. Or is Vitious. *Or* by default of the nourishing Faculty, when the Native heat, or radical moisture fails.

The CURE respects. 1. The Symptome it self, where take place, *a Bath* of the Decoction of the Head and Feet of a Weather, of red sallow. Of sweet water in which have boyled the ashes of Hazel, Flax Seed, the bones of a Weather bruised. *A moistning Diet*,

Diet, of the Emulſion of ſweet Almonds, of the four greater cold Seeds, with Goats Milk, &c. *The magnetick Cure*, concerning which ſee *Hartmans* Chymiatry. *Anoyntings* with *Amatus Luſitanus* his Unguent, *in Sebaſtianus Auſtrius de Morbis puerorum*, p. 555.

2. *The Cauſes* of which in the Differences.

The *Differences* of an Atrophy, are Various.

I. One is *Univerſal*, of the whol body, of which we have now ſpoken; another *Particular*, which proceeds from a peculiar fault of a part. In the Cure take place, fomentations, dropaces, pications, and percuſſions, by which the drineſs of the part is corrected, the obtuſe heat is rouſed up, and the nouriſhment is attracted.

II. Another is from *worms* which vex Children.

Another from *the Stomach* that doth not wel elaborate the Chyle.

Another from *the Liver*, when that is either troubled with a hot and dry diſtemper, and waſht with much Choler, or is very much obſtructed, that the nouriſhment doth penetrate with difficulty.

Another from *the Spleen*, to which the ſame things may happen.

Another from *the obſtruction of the Meſentery*, which is familiar in the East Indies, and for the moſt part hath Joynd with it a bulimy with a Lientery: but it turnes alſo to an impoſtumation, (which ſo waſhes the whol meſentery, that the Guts confuſed without any order do ſtick together only by thin Skins.) In the Cure is commended *the Croſs graſs*, of which ſee *Alpinus* concerning Ægyptian plants. cap. 40. See alſo concerning theſe things *Bontius* in medicina Indorum. p. 156.

Another is from *the Heart*, which is in a Hectick.

Another from *an Ulcer of the Lungs*, which happens in the Phiſick.

[Read more of this ſubject in the Guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations; and the *London Diſpenſatory*. Al of the laſt Editions, Engliſhed by me.]

Title, V. *Of the Affects of the Spleen.*

Chap. 1. *Of the Diſeaſes of the ſpleen.*

Article, I. *Of the obſtructions of the Spleen.*

THe Diſeaſes of the Spleen are, *Obſtruction, puffing up, Inflamation, a Schirrus, Ulcers, and wounds.*

The Obſtruction of the Spleen, is a ſtuffing up of the thick Humors.

The Part Affected is the Spleen, either according to its Veins and Arteries, or according to its whol ſubſtance.

The SIGNS are theſe, at the beginning there is Cauſed a heavineſs of the Hypochondry, & a pain of the ſpleen, from hence a humor mixt with the blood, and diffuſed into the whol body dies it of a Livid color, makes a difficulty of breathing after exerciſe. Poured into the Stomach Cauſeth nauſeouſneſs and vomiting; into the Guts, a diarrhy. Somtimes by reaſon of its dryneſs it binds the Body.

The CAUSE is an earthy and thick Humor, which oftentimes is collected from a Fenny Air, and groſs meats, and by reaſon of the weakneſs of the Spleen, and interception of the Paſſages cannot be expelled. *Somtimes* 'tis heaped up by reaſon of a hot diſtemper of the Spleen, and the attraction of the Chyle unconcocted, which happens after often lying down on the left ſide, & too much exeriſe. *Somtimes* it ſtopps there by reaſon of an accuſtomary flux of the Hemrods intercepted, or the ſuppreſſion of the Courſes.

The CURE isordered as in other obſtructions, yet note, we muſt have a care of the Cauſes from which it comes; the vomits do good, when as there is a ſtraite way from the Spleen to the ſtomach by the vas breve. *Of Purgers, Polypody and dodder of time*, with Raiſons, ſenny with cremor Tartar are of Force. *Of openers*, the Flowers of *Broom* and *Saxonia* his electuary *of ſteel* are commended. A Plaiſter of *Ammoniacum* diſſol-

ved in Vineger of Squils may rightly be applyed, Premising some convenient Fomentation. See *Solenanders strengthning* electuary in *Hartman*.

II. *The Inflation of the Spleen is a puffing up of the same into a Tumor by winde.*

The SIGNS are these, a Tumor and distension is perceived with some pain, but without the sense of heavines and a weight. A murmuring and sound is made. The Spleen being prest doth yeild.

The *Causes* are *either* too large drinking of cold water, *or* windy meats, as pease, chesnuts, beans, scallions. *Or* thick and viscous humors, which may be overcome by the weak heat and are resolved into vapors, which doe easily puff up the spleen, because it is spungy.

The *Cure* is as in others. The Chymists applaud the burning *Spirit of saturn* in the extract of ferne, and anoint the region of the spleen with the same thrice a day, purging in an external cause is disallowed, anointing with oyl of rue, cappers, &c. is sufficient.

Article. II. *Of an inflamation of the spleen, and schirrus.*

An inflamation of the spleen, is the lifting up of the same into a tumor, by blood poured forth into its substance.

Somtimes *the whole* spleen is affected, somtimes *not*.

The *Signs* are a tumor in the left hypochondry, bunching out as it were towards the fore parts, and as it were girting a man in the middle, so it is distinguished from the paine and inflamation of the left kidney which is higher than the right: there is a pulsation and palpitation of that side, by reason of the *arteries* with which it abounds, a continual feaver observing the periods of a quartan, difficulty of breathing by reason of the compression of the midriffe.

The *Cause* is blood poured forth and putrefying, which is *either* pure *or* mixt, and discovers its self by its signs.

The *Cure* ought to follow the method of other inflamations, so that larger drinking after purging be avoided, least the humor be carried to the substance of the liver.

II. *A schirrus of the spleen is a hard tumor of the same proceeding from a thick, glutinous and a hardened humor.*

The SIGNS are a resisting tumor with an ablong hardnes in the left side, and that without paine; to which are added a difficulty of breathing, a drines of the mouth, a swelling of the feet, uneasy lying on the left side, troubelsome swears, &c.

The CAUSE is a thick and glutinous humor, which *either* presently was such, arising from meats of a thick juice, from labors, watchings which do waste that which is spirituous in the humors. *Or* afterwards, when being thin of it selfe, tis hardened either by the force of heat, or by medicines too much discussing, or by its tartarous nature tending to induration. This diffused into the whole body with the blood, makes it livid and colour'd; and leads to a consumption, becaus the spleen oppress is not able to discharge its office of sanguification.

The CURE *is more difficult* if the patient have a diarrhy ensue, and a lientery, or water betwixt the skin follow it. *It respects* the same things as a schirrus of the liver. Amongst *things that disgest* inwardly, are commended, the root of *ferne*, the pouder of *dead nettle* in meats, the wood of tamariske boyled in steel water to a third part. *The composition of ferne rootes* one ounce; *dodder of vetches* two drams, boyled in eight ounces *of strong wine to the consumption of a third part. Outwarly* amongst emollient things *Fabricius* unguent is of force, compounded of *Gum ammoniacum one ounce; oyle of sweet almonds, white lillies, hens grease, each two ounces; the juice of hemlock foure ounces; vinegar of squils two ounces.*

The *Differences* are the same as of a schirrus of the liver.

I. One is *new come*, which afflicts with pain extending it self to the very throat. Another *inveterate*, which is void of al paine, neither doth it easily kil a man, unless the liver be drawne into consent.

II. One affects the spleen only *according to its substance*, which also is bounded with the figure of the spleen; though this do sometimes according to its longitude appear as round, sometimes according to its latitude, somtimes swels according to al its dimentions. Another is poured forth *into other neighbouring parts also*, that for the most part it comprehends al the left region of the belly.

Article,

Article. III. *Of an Ulcer and wound of the ſpleen.*

Concerning *an Ulcer*, there is nothing to be obſerved, but that it followes inflamations and tumors, and caſts forth its matter ſomtimes by urine, vomiting, or ſtool. It muſt be purged, cleanſed, healed.

A wound is either in its *ſuperficies*, which is leſs deadly: or in its *ſubſtance*, which by reaſon of the effuſion of blood is deadly; whereſoever it is it pours forth black blood, for the moſt part alſo it affects the ſtomach, cauſeth thirſt and paine to the throat; the matter ſomtimes is voided by the urine, carried through the cæliacal artery, to the trunk of the great artery, and hence to the emulgents. 'Tis cured alſo with vulnerary potions.

Chap. 2. *Of the Symptomes of the ſpleen.*

Article, 1. *Of the paine of the ſpleen, and black Jaundice.*

The Symptomes of the ſpleen, are, *a pain* of the Spleen, *The black Jaundice, the hypochondriacal affection, and the ſcurvy.*

1. *The pain of the Spleen* ariſeth from the ſolution of its continuity, and diſtenſion of its membrane. This is cauſed both from *things external*, as blows, fals, &c. and *internal*, viz. inflammation, inflation, tumors, ulcers, &c. But it muſt diligently *be diſtinguiſhed* both from thoſe pains which are felt in the left ſide, eſpecially after meat or riding which proceed either from wind, or from ſerous humors, which flowing into the ſpaces of the peritoneum that ſticks cloſe to the coates in that place, do diſtend them from the muſcles: and from the paine of the muſcles, which is felt if they be preſt a little. *The Cure* requires no narcoticks, for when as it is cloathed only with a thin coate the paine is not exquiſite.

II *The black Jaundice is a change of the ſkin of the whol body into black.*

'Tis *known* by the color it ſelf. It *ariſeth* from the ſame cauſes, as the yellow Jaundice doth, except that there the liver, here the ſpleen is in fault. *But tis harder to cure*, becauſe if it be by default of the bladder of gal, there is a greater corruption of choler, if by default of the ſpleen, the humor is more ſtubborn, and there is a fear of a dropſy. Medicines *of ſteele* are commodious in it, and alſo a dry bath, after which the body muſt be cleanſed with an emulſion of *hemp ſeed*, the face, with *beane flower* water mixt with wine.

Article, 2. *Of the* Hypochondriacal *affection.*

The Hypochondriacal affection is a filth of vitious humors collected in the branches of the vena porta, cæliacal & Meſenterical arteries, by reaſon of the hurt of the ſpleens concoction, without putrefaction, and by ſending forth of vapors, cauſing many Symptoms.

'Tis called *Hypochondriacal* by reaſon of the place of both Hypochondries, by which is underſtood that part of the body, which under the baſtard ribbs reaches as far as the loyns on both ſides, and comprehends with the muſcles the bowells themſelves. 'Tis called alſo the windy paſſion by *Diocles* and *Ætius*, for the familiarity of winds conteined in the left hypochondry, and it obtains the name of *Melancholly*, when as the brain is affected by conſent. As was ſaid before.

The Signs are fetcht from the ſymptoms, of the natural, vital, and animal faculties: there is. 1. A *crudity of the Stomach* by reaſon that it is ill nouriſht by the vena porta from the Spleen, which is followed with a continual ſpitting, Flegme filling the mouth with moiſture, vomiting up of the thicker parts of the humor, either generated in the ſtomach, or ſent from the ſpleen, and ſomtimes ſo ſowr, that the teeth are on edg, there goes before it an ebullition of the ſame in the ſtomach, wind diſtending the neighbouring parts, that ſomtimes the patient falls into ſwouning fitts: a diſcuſſion of the thinner parts of the humor by inſenſible perſpiration, ſometimes with a Feaveriſh ſhaking, which a certaine heat Follows preſently vaniſhing in ſweat. 2. *Pains in the ſtomach*, which reach even to the back, returne upon taking of meat, when 'tis concocted or caſt forth they ceaſe; they draw the kidneys into conſent by communion of membranes. 3. *Coſtiveneſs of body* both by reaſon of the dryneſs of the veſſels in both ſides, and becauſe the meat is changed into a flegmatick & viſcous humor, and ſo 'tis not moved forward by the gutts, and pertinaciouſly adhering to them, is the cauſe of aſtringency. 4. An inflammatory *heat* as it were of the *Hypochondry*, which by motion, meat, drink, hot things grows more fierce; which is attended ſomtimes with a redneſs of the cheeks and whole face by reaſon

of

of vapors aſcending: a diary Feaver vaniſhing in ſweat, by reaſon of the diſperſing of them through the whol body by large drinking. 5. *A Urine* ſometimes thin by reaſon of the paſſages obſtructed, and the retention of wind, from whence the fit begins; ſomtimes troubled and thick by the admiſtion of humors, with a ſediment ſomtimes of red ſand, in which the tartarous parts of the blood are coagulated. 6. *A Flatulency*, and waving eſpecially in the left hypochondry, the wind being impriſoned in the cavity under the midriffe, ariſing from the connexion of the ſtomach, caule, cholick gut, and bowels. 7. *Anxiety*, both becauſe the meat half concocted is reſolved into wind, and cauſeth a ſtraitneſs, and becauſe being carried to the neghbouring veſſels affected with a hot diſtemper, it boyls as it were with that Fiery heat, and diſtends the hypochondries, and ſo cauſeth a ſtraitneſs in thoſe parts which have nerves from the ſixth conjugation. 8. *A Palpitation of the heart*, either by conſent of the ſtomach, or by the contention of the part it ſelf againſt the malignity of the vapors, which is more frequent with ſome at the increaſe of the Moon, by reaſon of the greater plenty of ſerum than boyling in the maſs of blood. 9. A *pulſation in the left Hypochondry*, which either the celiacal branch cauſeth eſpecially after anger and motion, or the compreſſion of the arteries in the meſentery by the glandules, the great one eſpecially which is in the center. 10. A *drineſs of the Palate, mouth, and tongue*, by reaſon of the aſcent of reſolved vapors through the gullet and rough artery. 11. *Difficulty of breathing* both by reaſon of the affection of the nerves dedicated to the muſcles of the breaſt, and of the effuſion of the evil matter into the ſpaces of the muſcles. 12. A *perturbation of the brain*, for the vapors reſolved if they be acrid cauſe an *epilepſy*, if obſcure, they darken the ſpirits and cauſe *melancholy dotages*; if many, they are authors of a *vertigo*; if dry, they cauſe watchings, which are wont to moleſt moſt men after midnight, becauſe the chyle diſtributed, and carried to the ſecond concoction, the ſpleen, and the neighbouring veſſels, doth ſtir up the humors lurking in them, and raiſeth up vapors from them. Which are carried towards the brain; if into the gullet, the muſcles of the larynx, and rough artery, they cauſe a fear *of ſtrangling* by reaſon of the deſtenſion of that, and the contraction of theſe; if into the nerves of the tongue, the armes, according to the tract of the nerves, they cauſe a *ſtupidity*, and a formicant pulſe, ſomtimes in one, ſomtimes in the other hand. And theſe are, the ſymptomes, yet they do not invade al.

The Cauſe is the flegmatick, cholerick, and melancholy humors; yet melancholy cheifly, not only by their firſt and ſecond qualities, as they are aduſt, viſcous, fixt; but alſo according to their higheſt powers and ſtrength, viz. hurting by their bitterneſs, ſaltneſs, ſharpneſs and acidity. *They are collected, if you reſpect the place*, in the branches of the vena porta, the cæliacal and meſenterical arteries, the greater eſpecially, and which do waſh along the left hypochondry: neither the *vas breve*, nor the arterial nor venal veſſels excepted, nor the caul, which hath large veins from the vena porta. *If the cauſe*, they are gathered, 1 by reaſon of the *concoction of the ſpleen* hurt; and truely *either* by a hot diſtemper, by which it attracts crude juice, the watery firſt, afterwards the thicker; which ſtopping in the veins being deſtitute of a vehicle, is thickened and burnt, and yeelds matter for the generation of winde: *or* by dryneſs, hardneſs and ſcirroſity, its heat debating, by which the chyle not attracted ſubſides, and the excrements remaine not being caſt off, as happens in a ſedentery life; hence about the thirtieth yeare of our age the diſeaſe for the moſt part invades, *or* by an external error, when the chile is not concocted, either by default of the meats, or of the ſtomach, or paſſions of the minde, which while the meat is concocting doe cal away the heat to other parts, mixe choler ſtirred up by anger with the meats, trouble the ſpleene in its action, which abounds with many arteries. 2. By reaſon of *the fault of the glandules*, which underprop the veſſels of the meſentery, whiles they either compreſſe them by a tumor, or being compreſt in a ſedentary life, they render them more ſtreight.

The CURE *is difficult* by reaſon of the heape of ſymptoms. *The eaſier* if it be beginning, if it fal neither upon a ful age, nor declining; if the hemrods, ſwelling of the veins, courſes come upon it. If it affect men rather than women, the fat and faire, than the ſwarfie. If a bleeding of the left noſtril happen. If blackiſh urines be piſt freely without a feaver. *It reſpects.* 1. *Chyrurgery*, by vertue of which *blood muſt be let*, where note, a veine of the arme may be opened, if a great part of the matter is communicated to the vena cava, and any inflamation afflict about the liver; that the external hemrod veins may very wel be opened, becauſe being inſerted to the ſame right gut, their mouths doe communicate with the internal.

internal. 2. *Phyſick*, by vertue of which. 1. *The corrupt humor* ſticking in the firſt region of the body *muſt be brought forth.* Where glyſters take place, and womits, eſpecially if there be much in the ſtomach. 2. *The paſſages muſt be opened* and the humor prepared by things inceſſive and attenuating, where note that al things are rather to be uſed in a liquid forme, but if in a ſollid, a drauft of liquor muſt be dranke afterwards: we muſt begin with the gentler, and end with the ſtronger. Amongſt thoſe things are, *of ſymples, the roots of ſcorzonera, male fern*, the herbs of *fumitory, ſpleenwort*, the flowers of *burrage, buglos.* Apples Burſtorfian. *Of compounds*, the ſyrup of *ſweet ſmelling apples, of fumitory*, the pouders of *diacurcuma*, the eſſence of *fumitory, gremander*, &c. of which formerly in the obſtructions of the ſpleen and liver. After theſe, acid waters, baths, ſteele, muſt be given ſpring and autumn, which premiſing the evaccuation of the firſt paſſages, may be given in conſerve of burrage from too ſcruples to one dram and half; upon an empty ſtomach, firſt of al every third day, til the twentieth, before they are accuſtomed to it, afterwards, a drauft of wine muſt be added, and walking up and down for two hours if they be able; four hours after taking of it, let them eate their dinner: if they voide not black excrements, we muſt forbear; but if they be wholy ſuppreſt, we muſt move the belly. 3. *The humor prepared muſt be emptied*, by benigne purging medicines, corrected with moiſteners, by little and little, given about the laſt quarter of the moon, interpoſing baths and moiſtening Fomentations, myrobalanes and caſſia excluded. In a nidorous crudity things purging choler are beſt, in an acid, purgers of flegme and melancholly, taking meat two hours after that the medicine aſcend not beyond the liver. 4. *The vapors fuming up muſt be diverted* from the head and the heart by frictions, glyſters, cupping-glaſſes, cauſticks, and other medicines, as *elixer proprietatis*, conſerve of *roſes* with ſpirits of ſulphur and vitriol, 5. The *Parts which it offends muſt be ſtrengthened, and the ſimptoms taken away*, of which in their places.

The *Differences* are taken from the parts.

I. One is *eſſentiall*, which we have hitherto explained.

Another *by conſent* of other parts, and this.

II. One is *ſtomachical*, which is *known* by often ſpitting after feeding, by ſower belchings and ſavoring ſomwhat ruſty, by pricking of the mouth and jawes, with which thoſe ſo affected deſire cold drink, by vehement pains of the ſtomach, which in ſome proceed even to the back, the meate being concocted they ceaſe, by and by upon the taking in of more they returne, &c. *It is cured* by emptying, by diverſion, by bleeding and cupping-Glaſſes. If greate paine afflict, by abſterſives, dryers, ſtrengtheners.

Another *hepatical*, which is *known* by the pain of the right hipochondry, loathing of meats, a ſlow and erratick feaver, the extenſion of the pain to the ſhoulders and cannel bones &c. in the *Cure* which ſee in diſtempers; if it be hot, whey is good with the juice of lemmons, or of ſweet ſmelling apples newly expreſt.

Another from the *womb* whoſe vitious blood doth eaſily regurgitate *either* from the veins into the arteries by reaſon of their anaſtomoſis, or out of the arteries into the hypogaſtrick, which gives branches to the ſtomach, pancreas, caule, ſmal guts, &c. and by and by into the cœliacal. *It is known* by thoſe accidents which are wonte to befal thoſe troubled with the mother. In the cure we muſt have regard to the affects of the wombe.

Another is *hemorrhoidal*, happening from the ſuppreſſion of the hemrods, of which in its place. See *Matthæus Martinus* concerning the abſtruſer diſeaſes of the meſentery, who handles theſe things very accurately.

Article. III. *Of the Scurvy.*

The ſcurvy is a cachexy ariſing from a melancholly humor, corrupted in a peculiar manner, afflicting with a weakneſs of the thighes, ſpots, ſwelling of the gums, and bleeding of them, looſneß of the teeth, and other Symptomes.

The Scurvy was known to the ancients, partly under the name of *Oſcedo*, partly of *Scelotyrbe*, and *Stomacace*, partly of *Volvulus Sanguineus*, and is familiar to people inhabiting the Sea, and moariſh places.

The SIGNS are put in the definition, and we ſhal treat of them hereafter. To theſe ad *the Urine and pulſe too much variable, that*, for at the beginning tis thin and yellowiſh the tartarous matter ſubſiſting in it, by and by thick and white: the humors being more corrupted tis red, and by the admiſtion of an aduſt

ſal tneſs

ſaltneſs ſhining like a lye; and anon without any marke of putrefaction, and thirſt, red ſands oftentimes ſtick to the chamberpot. Somtimes tis thick and continues ſo, ſomtimes growes cleare, and caſts to the bottome a red ſediment which reſembles flower of Bricks; ſomtimes many crude and flegmattick excrements ſtick above the ſediment, as the ſuſpenſum: but in thoſe whome the ſuppreſſion of the hemrods hath occaſioned this evil, in them it comes forth by drops with paine and heat, and conteins a tartarous matter, Mucous, Salt and blackiſh. *This*, becauſe the pulſe ſomtimes is weak, unequal, and often vermicular, but fainting fits approaching, by Reaſon of its high neceſſity, and becauſe the Heart endeavours to expel the Vapors, 'tis ſtronger.

The CAUSE is *a Melancholy Humor*, and that, 1. Crude, as both the Diet and the Symptomes ſhew, which do afflict Melancholy people. 2. *Serous* and Ichorous, that 'tis like a Lie, which conſiſts of water and Salt, Feculent, and aduſt Parts, which is diſcovered by the wandering pains and Ulcers. 3. *The aſſociate of Flegmatick* ſomtimes, and vitious Humors, for a Vein being opened, the blood in Scorbutick people is covered over with a white Glew waxing Green or Yellow. 4. *After a peculiar manner corrupted*, after it hath remained there a long time; hence many labor of an obſtruction of the Spleen and Melancholly Humors, who are not affected with the ſcurvy; and in thoſe Regions where the collection of a black Humor from the heat of the Air is Familiar, the Scurvy is unknown. 5. *Contagious*, which you ſhal not find in other Melancholy Diſeaſes. 6. *Produced from meats deſtitute of volatil Salt; and therefore* hindering ſpirituality in the Concoction from whence things Tartarous and Feculent ſtop in the firſt paſſages, and afterwards flow to the Spleen in ſuch plenty, that they cannot be ſeparated. Certainly meats hardned with Smoak and Salt, in which there is either little of volatil Salt, or what there was is waſted by Smoaking, ſo that nothing but the fixt Salt and Tartarous remains, a thick Air, and maritime places do conduce to its generation. The medicines which are given bruiſed and taſted, ſend forth a ſharp vapor, ſubtile and quickly vaniſhing, which proceeds from volatil Salt, the ſame dryed or boyled work leſs, freſh and condite do worke more exactly. 7. *Primarily*, reſiding in the Meſentery, Caule, firſt Paſſages, and the middle places between the ſtomach, Liver and Spleen, and bordering on both Bowels. *Secundarily*, in the Veins of the whol body. *That*, for if the Chyle be leſs purefied by its ſpirituality, either by reaſon of the weakneſs of parts, or external error, it ſtops in them by reaſon of its thickneſs, by the arrival of more 'tis increaſed, and infects the ſame with its feculency and ſaltneſs which it hath conceived, it weakens and pollutes the neighbouring Liver, and the parts dedicated to concoction, both by contract, and ſending forth of Fumes, from whence that quality is participated of by the ſame meats and Chyle. *This*, for that filth detained there for ſome time, by help of the ſerous Humor is carried to the Liver, from thence by the Veins and Arteries is diſtributed into the whol habit of the Body, the future Cauſe of ſo many Symptomes.

The CURE reſpects three things. 1. *The Diet*, which ought to be inciſive, attenuating, abſterſive opening obſtructions, where note, the eating of wild Pidgeons is commended, that this Diſeaſe in ſome places is Cured by the exerciſe of Venery, perhaps by reaſon of the exſplendency of natural heat. Things Sugard and Milks muſt be avoided. 2. *Chirurgery*, by Vertue of which the baſilick Vein, the median, Salvatella, or of the Ankles muſt be opened; but ſo, that we forbear if the ſpots have already appeared: if there be no Hopes of the Hemrrhoids, and a Feaver affect, let it be done. Let the Evacuation be ſparingly leaſt the ſtrength be dejected. 3. *Phyſick*, by Vertue of which. 1. *The matter offending muſt be prepared*, the firſt paſſages being waſht, ſo that we begin with the gentler; that we act with things more attenuating if the Diſeaſe be now grown ſtrong, or the men live in a thick Air; That thoſe things be given which work by their whol propriety, and be adminiſtred rather in juyces, eſſences, conſerves, than in Decoctions and extracts, in which the volatil Salt of medicines doth vaniſh. *Things appropriate* are *Engliſh Scurvy-Graſs*, which is moſt commended, or *Brooklime*, which hath ſomthing of moiſture in it, *Horſe-Radiſh*, *the leſſer Celandine*, *Pennywort*, *Muſtard*, *water Trefoil*, &c. *Of Compounds* are, *the Danick* electuary made of the berries which they cal multiber. *Foreſtus his Sceletyrbick* Syrup, and *Mynſichtus his Antiſcorbutical* Syrup. The eſſence *of germander and Fumitory*. The Spirit and conſerve *of Scurvy-graſs*. Mynſichtus his *Tinctura Martis* ſtrengthned with appropriate things, &c.

2. *It*

2. *It must be emptyed either* by the lower Parts, where take place Quarcetans *Tartarous Pills*; *or* by sweats to discusse the remainder, which either in a Laconick Bath, *or* otherwise, are wel raised by *Mynsichtus his Theriaca Saxonica*, the essence *of Fumitory* with Salt of Wormwood; *or* by *Diureticks* given with appropriate Waters. 3. *The Parts*, as the Liver, Stomach, &c. Must be strengthened.

The Symptomes, which afflict the scorbutical, are various, which affect for the most part by periods, are not al found in al people; some are more familiar, others less; but they are as follows.

I. *Difficulty of breathing*, and a straitness of the breast by fits, which affects without a noise, hissing and cough; somtimes it hath joyned with it, a darkness cast over the Eyes, faintings, and the Patients despairing of health. It *ariseth* from Vapors or Humors *Sticking* in the Cavity of the Caul, and compressing the Midriff, which being stirred after vehement exercise make the Symptome more greivous. *'Tis Cured* with Thoracical and Antiscorbutical means, to which add somwhat of *Eichstadius* his Confection of *Alchermes, and Saffron.*

II. *An Itching, Tumor, and Putrefaction of the Gums*, for whenas their flesh is soft and loose 'tis easily corroded by the thinner and sharper part of the Humor ascending thither. It cheifly troubles Children, and affects with a blackness of the Teeth, Putrefaction and looseness, their holes being possest with the evil Humor, yet it suddainly vanishes, by reason of the recourse of the Humor. *The Cure* of it is helped by appropiate Waters, if the mouth be washt with them. By the Decoction of astringent plants in austere Wine, adding Spirits of Vitriol and Alum, which are most effectual.

III. *Plenty of spots in the Thighs*, which for the most part trouble those of ful Age; first they are ruddy and like flea-bitings, by and by they become purple and somwhat livid, at last they decline to a black color. When there is many, Somtimes they invade the breast, the Neck, Arms, and Face: somtimes they vanish suddainly, somtimes last many yeares; somtimes they turne to scales; and by how much the more livid they are, by so much the more dangerous. *They arise* from the descending part of the Humor, thrust by Nature to the more ignoble Parts. They may *be Cured* by things discussive and mollefying, as Baths *of Juniper berries, cresses, Scurvy-grass, Chamemel, &c.* if they be *ulcerous* they are hardly cured, whenas the whol thigh is gangrend by them.

IV. A *paine of the thighs*, which is distensive, dul, breaking the bones, lying deep, grows Feircer towards night, by reason of the motion of the melancholy humor about that time. *It ariseth* from serous humors, somtimes falling down from the head, and cleaveing to the membranes, sometimes poured out of the veins from the seat of the filth by the crural branches of the vena cava, and insinuated into the muscles of the thighs. *'Tis mitigated* with a cataplasme *of coagulated milk*, with flowers of chamemel, water cresses, and Juniper beries boyled in milk. *'Tis exasperated* by giving of fat things before the spots break out.

V. *A pain of the belly*, which somtimes doth so goad, that the sick fal into a rupture of the peritoneum. It troubles by intervalls with a pulse and urine scorbutical. Somtimes it lasts to the fortieth day, neither is it circumscribed with the course of the collick gut. And truly with a depression of the belly, that it is pulled inward with the navel, and this seems as if it were tyed to the loins; with a distension felt according to its longitude, a pulling of the right gut upwards, that nothing at al is voided. *It ariseth* from an effusion of that matter through the mesaraick veins, which do not open into the gutts, between the two coats of the guts. Hence is a distension, convulsion, pulling, drawing of the neghbouring parts into consent, a pregression of Feavers, whose Fewel is in the vessels of the bowels. *It is cured* by removing the cause; by mitigating it by laxatives and glysters, by which excretion ought to be provoked. The *elixir proprietatis* is very profitable.

VI. A *pain of the feet about the ankles and soles*, which is a fore-runner of the spots, and by reason of the thinness of the matter, it doth as it were penetrate the parts. 'Tis cured by a medicine made *of the flowers of elder two handfuls*, boyled in wine, adding two drams *of soap*, and applyed on a cloath to the part in pain.

VII. *Pains of the Hypochondries unbounded*, because the wind hath no passage out, *Nephritical*, either because the Matter descends by the emulgent vessels to the kidneys: or because being heaped up, and by the accession of an external cause, thrust to the greater vessels, it flows down to the kidneys. *Of the*

Loyns, which sometimes arise from vitious blood conteined there, somtimes by way of a catarrh falling from the head by the veins upon the spinal marrow; hence the paines begin from the shoulders, and by degrees creep to the Loyns.

VIII. *Paines of the head*, which trouble about the evening, and are joined with a certain Feaverish heat, which vanish away in the morning sweats; they afflict those principally who contract this evil from the suppression of the hemrods. They arise from vapors ascending thither. They require, that *brooklime* be given in a greater dose, the quantity of hot things be diminisht, the hypochondries be anoynted with things opening.

IX. A *Gout*, concerning which note, that it is *wandering*, especially if cold topick medicines be applyed; that for the most part 'tis joyned, with a light palsey, with a paine ceasing and returning. That *it ariseth* from serous humors, thin and apt for motion. That 'tis wonderfully *to be observed*, that if a live worme be layed upon the place that is fullest of paine it skipps, winds and bowes it selfe about, wasts away and dyes. *Amongst sweaters* that is appropriate, which is prepared of *the roots of Devils bit* one ounce; *round birthwort* three drams; *the herbs of Sage, betony*, each one handful. *Southernwood, Rue, Perewinkle, Savine*, each one pugil; &c. See *Horstius* concerning the wandring scorbutical gout, Tom. 1. of his observations.

X. A *Palsey* which somtimes involves the the thighs, somtimes al one side. *It differs from the palsey of the ancients*, because some motion remains, 'tis interrupted, it assayles by little and little before it fixes, it follows no such fixt stupidity, paines of the colon and belly, tumors breaking forth in any part, and easily vanishing again. *It ariseth* from the scorbutical matter carried to the spinal marrow by that branch which is extended from the Aorta, not far from the mesenterical branch, and creeps to the back bone and its vertebraes. *'Tis Cured* if the tendons be not rigid, the body being once or twice purged, by the use of brooklime and scurvy-grass; if they be hardned and rigid by emollient cataplasmes, premising *fomentations* of water, in which the leaves of Sage, Betony, Rosemary, with elder and melilot Flowers have been boyled.

XI. A *Convulsion and contraction*, which somtimes grows so strong, that the sick are not able to extend any joint, and they are drawn as it were round. *'Tis joined* somtimes with a rigidity of the turning joint of the mouth, on which the lowes jawe under the place of hearing is reversed, so that the mouth shuts close, that it cannot rightly be opened. *It ariseth* from the rigidneis of the tendons, when in that tartarous but serous humor, this being discust that is left and dryed. *'Tis cured* by things mollefying and discussive.

XII. A *deepe sleep*, which somtimes afflicts, with a slow continual Feaver, somtimes with an intermitting; it comes with a fit, and that going away it ceaseth. 'Tis cured with *watercresses* which grows in clear waters.

XIII. A *Palpitation of the heart, and swouning*. Concerning which we must know that it serves for the most part, when the patients rise in their bed the humors being stirred; somtimes. 'tis so great, that they dye suddainly. 'Tis a certain sign of the scurvy, if it afflict in a disease that is smal to the sense. It ought to be opposed by medicines given six or eight times a day with things antiscorbutical.

XIV. *Vomiting*, which is rather a vaine endeavouring, 1. To vomit, that hath no heavines or pain of the stomach going before, it is not taken away by medicines that strengthen the stomach, 'tis rather quieted with milky things, that do lenify the humors.

XV. *Too much spitting*, which *ariseth* partly from vapors raised up to the mouth, from the bordering places of the stomach; partly from meats corrupted in the stomach, and carried up to the mouth along the course of the membrane lining the gullet: partly from a serous humor poured forth from the spleen into the stomach through the *Vas breve*. *'Tis prevented* by avoiding of sharp and hot medicines which diffuse the matter.

XVI. *A Flux of the belly both diurnal and nocturnal*, which brings forth compacted excrements, but exceeding the meat in quantity, sometimes of a green, somtimes of an ash color. It *ariseth either* because the nourishment not attracted by the weakneis of the liver, is corrupted, *or* because the serous humor flows back from the spleen to the gutts; *or* because the serum which might have been dissipated thorough the habit of the body in forme of a vapor by cold condensing the pores is driven back to the guts, or the vessels, especially in the morning time, when the body is open with heat, being bound up by cold, 'tis thrust back towards the greater vessels, and carries with it to the guts, whatsoever

whatſoever it findes in the way: and then *in the cure things aſtringent* are moſt *hurtful*. A dry dyet muſt be uſed; wormwood wine diluted with the decoction of ſuccory is good, *or* becauſe whiles the ſerous humor grows hot with the Feaveriſh heat, and cannot be exhaled, it is turned thither; and then ſyrup of Roſes ſolutive and things of ſuccory are good. 'Tis ſomtimes *bloody* but without paine, and with other ſigns of the ſcurvy. It *ariſeth* from Feculent blood abounding in the veins, and poured forth into the guts through the ends of them.

XVII. *Feavers, which differ far from other Feavers.* For the ſence of cold extends it ſelfe to ſix or ſeaven hours, the pulſe is ſlow, weak, unequal in the declination, great and hard in the vigour, the urine is as we have ſaid formerly. Somtimes they trouble thrice, ſomtimes four times a day; moſt commonly they are mixt of the type of a continual and tertian. The continual if they be exaſperated by purging medicines or hot potions do kil.

XVIII. *A dropſy* which afflicts both with a harder manifeſt tumor, and diſtenſion of the ſpleen, liver, or belly, and with a greater difficulty of breathing, than otherwiſe, which after the uſe of purgers doth moſt of al torment, and becauſe it proceeds from thick vapors, they being diſcuſt it ceaſeth.

XIX. *An Eryſipelas*, Which ſomtimes moleſts every week, ſomtimes every month, it proceeds from ichorus humors corrupted after a peculiarmanner. *In the cure* the water of elder flowers with Carduus water is good.

XX. *Ulcers* which are dry and yeild no matter or filth, they trouble thoſe moſt that are of a cholerick temperament. They poſſeſs not only the thighs, but other parts alſo: ſomtimes they become ſo gangrenous, ſo that they feel not iron inflicted on them, they ought *to be cured* without any biting or pain; brooklime alone boyled in drink, layd on them twice a day doth much good, and alſo the ointment *of diapompholygos* in great putrefaction, ſome *Mercury precipitate*, or *ſpirits of vitriol* muſt be mixed with it.

XXI. *Hard bunchings in the whol body*, & great tumors which ſtick in the groin, the glandulous parts of the body, like unto muſcles, they are without paine while the patients are quiet, with paine when they walk. If they break forth ſuddainly, and by and by vaniſh they preſage a palſey. A cataplaſme *of the root of the greater comfry, of bryony, wormwood, the crum of white bread* boyled in milk, is commended in the cure.

XXII. *An Atrophy* which proceeds at firſt becauſe the faculty is diſapointed by reaſon of vitious nouriſhment, in proceſs it ariſeth by reaſon of a vitious diſpoſition imprinted on the parts by the defluxion of humors. *For the cure* is commended *goats milk*, if the goat be nouriſht with things antiſcorbutical. I omit the reſt. See concerning this diſeaſe, *Sennartus*, *Horſtius* and others.

Title, 8. *Of the affects of the Kidneys.*

Chap. 1. *Of the diſeaſes of the kidneys.*

Article, 1. *Of the Straitneſs of the Kidneys.*

THe diſeaſes of the kidneys are, *ſtraitneſs, inflamation, the ſtone, wounds and ulcers.*

The ſtraitneſs is an obſtruction or compreſſion of the veſſels in the kidneys induced by its cauſes.

The Signs of it are, the retention or paucity of urine, and from thence a ſence of diſtenſion and hevineſs about the loines, in one, or both ſides, &c.

The Cauſes ſhal be explained in the differences, the continent is put in the definition.

The Cure varies according to the nature of the differences.

The differences are taken from the cauſes inferring the obſtruction or compreſſion.

I. One is from *a tumor*, *Phlegmon*, *Scirrus*, *compreſſing them*, *too much dryneſs* whiles the ſubſtance is wrinkled and contracted; which wil diſcover themſelves by their ſignes; although the laſt is very hardly known.

II. Another *from humors* viſcous, thick, clammy, which *is known* by their redundance, the abſence of pain, and a Feaver. *'Tis cured*, 1. By emptying by ſtool or by vomit, 2. By things deterſive, inciſive, and diuretick. The waters of *parſly*, *reſt-harrow* with *Fernelius* his ſyrup *of radiſh* are commended. The ſpirits *of ſalt*, tartar *vitriolate* with a Julep of violets, &c.

III. Another is from *clotted blood* which hath fallen out of its veſſels, and concreted there. *'Tis known* from hence, that piſſing of

blood went before, and causes enducing it, as blows, falls, &c. 'Tis *dissolved* with *chervil* water, *dyers madder*, with the seed of cresses, *sperma ceti*, and mummy, made into a pouder.

IV. Another is from *matter* which is generated there, or flows from some other part. It *is known* by the signs of an ulcer or impostumation in the kidnies, and the urine sometimes purulent. 'Tis *cured* by absterstives.

V. Another from *the stone*, of which shal be treated hereafter: in the meane while observe *that gravil* doth sometimes do it, which *either* is produced in the proper substance of the kidnies, which is *known* from hence, that 'tis hard and red, and thence rapt with the violence of the urine running is carried into its hollow part, afterwards is thrust down to the bladder, and when the water is made it doth sinke, and is hardly bruised with the fingers. *Or* doth arise from the adustion of humors in the veines and liver, that which is voided in the declination of feavers both acute and chronical; 'Tis *known* from hence, that it doth not subside, but is mixt with the substance of the urine, cleaves to the chamber pot like pouder, and is easily bruised with the fingers.

Article. II. *Of an inflamation of the Kidneys.*

An inflamation of the kidneyes, or nephritis, is a swelling of them from blood poured forth into their substance, and there putrefying, joyned with a vehement paine, fibrous or gravelly, excretions.

The *Signs* are a heavy and extensive paine about the loins to the first vertebræ, which *differs from the collick* in these, because it doth not wander into the middle of the belly or about it with a murmur, doth not alwaies grow gentler the belly being purged, by its cruelty and fiercenes it puls the peritonæum; tis very thick and frequent. There is a continent inordinate feaver, which somtimes increaseth, somtimes abateth, and about night is exasperated: a subvertion of the bowels and stomach. A casting up by vomite, first of al of flegmatick things, afterwards of colerick; a scarcenes, thinnes, wateri shnes of the urine when the evil begins, somtimes a suppression, by and by that plenty and thicknes with a compulsion to pis from a certain sence of heat; A stupidity and numnes of the next thigh, by reason of the compression of the nerve. A difficult raising of the body; lying down upon the sick side mitigates the paine, upon the contrary exasperates it.

The *Cause* is blood, either pure or mixt, either heaped up in the kidnies by way of collection or thrust thither by way of fluxion, either from the whole body, or from a part, as is often said elswhere.

The firmnes and hardnes of the kidneys seldom give *occasion* for a fluxion, oftentimes diuretick medicines doe, which carry the blood to the kidneys.

The CURE is *easier* if the hemrods come upon it, if the impostume being broke, a white, smooth, equal matter, not stinking, be voided through the passages of the urine if it tend to resolution. *Very difficult* if the Impostum being broke after suppuration, the matter take its way through the emulgents to the liver and guts. If it tend to induration. *Past hopes* almost if there flowe a white, thin, or purulent water, without the remission of the feaver and symptoms, and with a wasting on the legs and thighs. 'Tis *ordered* as in other inflamations, yet *we must observe*. 1. That things moderately cooling and astringent be used with things anodyne for repulsion; outwardly indeed, least the humors subsisting about the external and fleshy parts be struck inward into the kidneys; but inwardly, least when they begin their astriction about the belly, or liver and veins, they should either cast down the blood to the kidnies or by straightening the narrow passages, cause an ischury 2. We must abstaine from purgers because they inflame and trouble the humors, yet gentle and benigne must be given, if choler stick in the mesaraicks and stomach, least it be carried thither. 3. Diureticks must not be drank unless when the inflamation is perfectly alaied. Here takes place *tartar vetriolate* half a scruple, with the Julep of roses and cinnamon water two drams; and other things.

The *Differences* are taken from the part affected.

I. One is in the *Right kidney*, in which the loins on the right side are payned, the paine ascends more to the liver, the right thigh is benummed.

Another in the *left*, in which the paine descends to the bladder.

Another in *both*, in which the symptoms oppress in both sides.

II. One is in the *fleshy part of the kidney*, in which a greater heavines affects.

Another in *the parts in which the arteries are terminated*, in which a beating paine urgeth.

Article

Article. III. *Of the Stone of the Kidnies.*

The stone of the Kidnies, is a solid and stony substance, mucilaginous, slimy, tartarous, endued with a stone making faculty, arising in the kidnies by the help of heat.

The *Signs* are principally five, 1. A *Pain*, which affects in the loyns, causeth a sence of heavinesse, by reason of the substance of the kidnies void of sense: in its descent into the ureters 'tis increased, by reason they which consist of a crosse and thick membrane, are distracted, especially if the stone be great, craggy, and rough. 'Tis distinguisht from the chollick, because 'tis neither so grievous, nor so large, because 'tis fixt, and is circumscribed with the region of the kidnies, and if it fal into the bladder, it follows the course of the ureters, and affects not with winde. 2. *Bloody urine* by reason of the wounding of the parts through which it passes, which at first is little and waterish, by and by suppresst, the stones being removed out of the kidneys, 'tis turbulent, and having a sandy sediment. 3. *A Numnesse* of the thighs which happens not in the paine of the chollick, because the muscle on which the kidney lyes, and which is appointed for bending of the thigh, and is inserted into the inner part of the thigh, is compresst. 4. *A retraction of the testicle* of that side, by reason of the retraction of the neighbouring vessels, which lead to the stones, and are inserted in them. 5. *A nauseousnesse and vomiting*; for the kidnies are knit to the stomach by the mediation of the peritoneum, whose membran each bowel participates, and two nerves of the sixth conjugation issuing from the stomach are implanted into the internal coate of the kidneys. *The voiding of gravel* is a signe of the stone in making.

The *Cause* is not *flegme*, for many are troubled with that, who have no commerce with the *stone-growing juice*; hence those that have the stone oftentimes make water, which is like mucous matter, and presently concretes into a stone. But this *proceeds* from the fæculency of the nourishment, which if it be retained, glues it self to this or that part, by the new arrival of matter is dayly increased, being increated by degrees it is dryed, and where it finds a viscous, thick, earthy matter, it coagulates it, and afterwards the internal spirit of the microcosmical salt comming, the which by reason of its natural viscousnesse, or clamminesse that Tartar easily receives, and hides within it self, at last 'tis Coagulated into a perfect Stone.

The CURE is *Difficult* if bubbles for some daies are perceived to continue in the Urin, because they shew a great quantity of Tartarous and mucilaginous Humors, together with wind doth abound in the Kidneys. If from Urin remaine subtile, and last so for some time, because it argues a great obstruction. If the it an Ulcer of the Kidneys ensue. If the Patient be of Nephritical parents. It *respect.* I. *Prevention that either it be not generated, or do not encrease*, and then. 1. There must be care had of the Diet, in which meat and drink making for the stone must be eschewed; the contrary meats made use of amongst these are commended, asparagus moderately boyled, with Oyl of Vinegar and Butter, taken at first Course, the fruit of *Eglantine*, *the stones of the same* boyled in broths, *Chervil*, *Radish*, *Oyl of Olives and sweet Almonds*. 2. *The matter collected must timely be emptyed, that it do not concrete.* By vomits given every month twice or thrice, by lenitive Medicines, especially *Cassia*, *Turpentine*, and those that purge water. By things that break it, if any thing be concreted, amongst which are commended the Decoction of *the Nephritical wood*, *of Alebooef*, the Juyce of *Speedwel* with the Water, and other things, of which hereafter. 3. *The Reins must be reduced to their state*, and here bleeding prevails, if the Liver hath raised a hot distemper in them, the administration of Strawberry, Purslain, Barley Water and anoynting with cold Unguents. II. *The taking away of the stone generated*, which is performed, 1. By cleansing of the first Passages by gentle Evacuaters, corrected with things that discuss wind. 2. By opening a Vein in the Arm, if there be a plenitude in the whol body, and the pain be great; of the Ancle, or Ham, if it be fallen upon the affected Part. 3. By Relaxing and making slippery the Passages, inwardly with the Syrup of *Marsh-mallows*, *Liquorish*, *Violets*. Outwardly *with an Oyntment* Compounded *of Oyntment of Dialthea*, two drams; Hens Grease, new Marrow of a Hart, each one dram; Oyl of White Lillies, one dram; of Scorpions, two scruples; Oyl of Wax distilled and spirits of Turpentine, of each one scruple; Wax, and Saffron a litle. *By a Bath of sweet Water*, in which may be taken, Oyl of

fresh

freſh Almonds, two ounces; Oyl of Turpentine, ſix drops, With a drauſt of Warm wine. 4. *By Removing, Breaking and expelling the Stone* by Medicines that wil do that: *the more Excellent* of ſimples are, the magiſtral of *Tartar Vitriolate, of Crabs Eyes, of the mandible of a Pike, and the Jewiſh Stone.* Lapis *Prunella,* the eſſence of *Cryſtals,* the *Nephritical* Stone, the Aqua Vitæ of *Juniper.* Horſtius, T. 1. P. 481. Of compounds, *Zacutus* his Confection or conſerve of *the Nephritical Stone.* l. 8. c. 16. *Mynſichtus,* his *Nephritical* liquor, Armament. P. 338. *The mixture* of magiſtral of Tartar Vitriolate diſſolved, Crabs Eyes, Lapis prunella, the volatil Salt of Amber, and *Untzerus* his Saxafrage Water. *The generous Wine of the ſame Author,* in which a ſharp radiſh with the Rind taken off, and cut into thin ſlices, was ſteeped a whol day, given with the magiſtral of Crabs Eyes and ſpirit of Salt. *The mixture of* Muffet *the Engliſh man,* Ciſtæ Medicæ, p. 34. *Of Libavius* of white Saxifrage water, with Sugar of Violets and Roſes ſtreined, with a little Spirits of Vitriol. *Zuingerus his expeller of the Stone,* Ciſt. Med. p. 35. 3. *The removing of the pain,* which is performed by the Oyntments formerly preſcribed for relaxing of the Paſſages, with a half bath prepared of things anodine, *Cratoes Cataplaſme* of pellitory of the Wal, Parſly, Onions, &c. 4. *The Diſcuſſion of wind,* if there be any. See concerning the Stone, the excellent & moſt ſatisfying Treatiſes of *Untzerus, Franciſcus Collutius, and Beverovicius.*

Article, IV. *Of an Ulcer and Wound of the Kidneys.*

Concerning an Ulcer of the Kidneys, Let it ſuffice to have obſerved theſe things.

I. That it doth very ſeldom happen from an *Impoſtumation of a phlegmon,* by the Acrimony of the matter flowing thither corroding the Kidney, by a blow, or fal breaking the Veins; yet if it do happen, the Cure doth require, that the falling down of Humors be ſtopt by Diet, by bleeding and purging; they already fallen muſt be temperd with coolers, nephritical means: muſt be emptyed with turpentine reduced with the yolk of an Egg into a liquor, or with the pouder of liquoriſh into a Bolus.

II. That it is alwaies truely Cauſed by *a Stone reſtrained within it,* which either by its weight doth bruiſe the Kidney, or by fretting diminiſh and corrode it. *Then* the Urin before it begins to be purulent, becomes bloody, eſpecially after exerciſe and labor; none or an obſcure feaver troubles them. If at any time the matter be ſtopt by the obſtruction of the Head of the Ureter, that by degrees either redounding by the emulgent into the greater veins will defile the blood and habit of the body; or heaped up in that place, wil diſtend the Loyns, from which the Skin being opened it wil flow much and a long while.

III. *In the Cure the Decoction of Parſly,* diſcribed by *Doringius in his Mithridatotechina, p.* 150. Bears the Palm from al others.

Concerning *a Wound of the Kidneys,* it ſhal ſuffice to have noted theſe things.

I. *That it is known,* by the Situation, ſuppreſſion of Urin, or difficulty of it, by its bloodineſs, by a pain extending to the groins.

II. *That it is divided* into that which is in the *Superficies and fleſhy Part,* and then much blood flows forth, the Urine goes not forth; the ſtronger agglutinatives may preſently be adminiſtred: and into that which *Penetrates even to its Cavity,* and then the blood goes forth with the Water. *In the Cure* the blood muſt be ſtopt. This ſtopping, things agglutinating muſt be given inwardly and laid upon it; and here is of force, unguentum *Sanctum of Andreas a Cruce,* which ſee in *Sennertus,* &c.

Chap. 2. *Of the Symptomes of the Kidneys.*

CConcerning the Symptomes of the Kidneys, Viz. *The Separation of the ſerum hurt, and Pain,* few things preſent themſelves.

I. *The ſeparation of the Serum,* is hurt by the fault of the emulgent Veſſels and Kidneys, which *either* labour of a cold diſtemper, and then the Urine is not ſuddainly ſuppreſt. *Or* of a ſtreitneſs, of which formerly. In the Cure, Diureticks muſt be given an hour or two before meat.

II. The Nature of *the Pain* may be fetcht from the Chapter of inflamation and ſtone of the Kidneys. At the ſeat of the Kidney 'tis fixt and firm on either ſide, unleſs that ſom-

times

times 'tis extended either to the Hip, or to the Stone of the ſame ſide by the Courſe of the ureter. They that are accuſtomed to it, by reaſon of the dilatation of the ureters, are not ſo eaſily affected, unleſs perchance the ſtone be thick and rough; but they who are not accuſtomed to it, or have been ſeldome and gently troubled with nephritick pains, are tormented with the leaſt ſtone, &c.

Title, IX. *Of the Affects of the bladder.*

Chap. I. *Of the Diſeaſes of the Bladder.*

Article, I. *Of the Stone of the Bladder.*

THe Diſeaſes of the Bladder are, *The Stone, Inflamation, Ulcers*, to which ought to be added, *the ſtreitneſs of the paſſage for Urin.*

What *the Stone of the Bladder* is, may be perceived by the definition of the Stone of the Kidneys.

The SIGNES of it are, an Itching and ſharp pain in the Neck of the Bladder, the Pubes and Perinæum, which by progreſſion and diſtention of the Bladder, torments with great tortures, the Patients are wont to ſcratch their Privities and often to diſtend them, and make Water by drops with exceeding pain, and that while the Stone is gathering together is thin and clear, of ſomwhat whitiſh color, but being concrete, 'tis wont to ſettle like unto Oyl, with a gravelly ſediment, white, like to ſcabs, if the Stone be brittle.

The CAUSE, *and* CURE, muſt be fetcht from the Chapter of the ſtone of the Kidneys. If it cannot be broken and expeled, it muſt be cut out, concerning which ſee Chirurgions. *For breaking of it* ſerves *the Compoſition* of Salt of white Tartar, one ounce; and Parſly Water, one pound, mixt together, and ſtreined through ſtreining paper, dyed of a yellow color with Orange Pils; alſo the *Pouder of Palmer Worms*, concerning which conſult with the peculiar treatiſe of *Laurembergius*. And alſo *the blood of a Goate*, nouriſht with Plants that break the ſtone, diſtilled, taking at meat thoſe ſtuffings which ought to be made of its Kidneys, and other Bowels and Guts. *For mitigation of the Pain a Bath* is good, which muſt be followed with an unction of the God, Pubis, and perinæum, with *the Compound Oyl* made of Oyl of Scorpions, bitter Almonds, the Fat of a Cony and Hen, of each one ounce and an half; and the Juyce of Pellitory of the Wal, two drams.

There meet us ſome *Differences* of the ſtone.

I. One is *ſmal and light*, in which a vagous and wandering tickling afflicts about the pubes and perinæum, the which is eaſier broken.

Another *a little bigger*, in which there is felt the weight of ſome heavy thing lying upon it, ſo that going through uneven places is difficult and painful, and dancing much more difficult, they piſs often, and the Urin can hardly be kept in, which is white, thick, turbid, with a purulent Sediment, or like to the ſnivel of the Noſe; when they ſhould piſs the ſtone driven in the way, the flux of Urin is intercepted, there is a moſt ſharp pain towards the latter end of piſſing, when the ſtone ſtirred up by the Courſe of the Urin, as if it were comming forth, doth more violently compreſs the Sphincter muſcle, at other times it affects the whol paſſage of the Privity, ſomtimes the Nut. Striving to piſs is accompanied with a deſire to go to ſtool, becauſe the greatneſs of the ſtone from the perinæum ſtimulates the right Gut, as wel as the Neck of the Bladder. This can hardly *be Cured* any other way than by cutting.

II. One is *concrete*, which ſends no gravel from it in the Urin. Another *not concrete*, in which the Urin doth caſt off ſome gravel and that either white or red, which muſt be diſtinguiſhed from that of the Kidneys, by other ſigns of the ſtone of the Bladder.

III. One is which grows in *the bladder it ſelf*, to which that ſaid before accords. Another *which deſcends from the Kidneys through the Ureters into it*, and then ſigns of the ſtone of the Kidneys went before, there was a pain reacht from the Kidneys to the bladder, according to the length of the Ureters, the Nephritical pain is either ceaſed, or troubles little. This ſome do beleeve may be broke by the Indian Plant called by *Manardus*, *Payco*, and by other things.

IV. One is *which doth not cleave to the Bladder*, and therefore may be taken forth more ſafely by cutting. Another *which cleaves*

to

to the top of the bladder, and hangs down as it were from it, and then all the symptomes reckoned formerly, are more obscure, there have been those seen who have carried it without any paine: nay it can by no meanes almost be removed without injury to the patient. Of which see *Tulpius observat.* l. 2. c. 5.

Article, 2. *Of an inflamation, scab, ulcer and fistula of the bladder.*

An inflamation of the bladder, doth not so much possess the substance of the bladder, which is thin and bloudless, as the sphincter muscle of the neck of it.

The signes of it are, a bitter paine in the perinæum with redness and heat, a suppression of the urine with a great endeavoring to piss, costiveness of the body (because the right gut is streitned by the greatness of the inflamation) a distension of the pubes and pecten to the navel by reason of the abundance of water.

The cause is the same as of other inflamations.

The cure is difficult, becaus the affect is deadly for the most part about the seventh day especially, a Feaver comming, and the stoppage of urine, and stools: yet if it be gentler, and the inflamation being changed into matter, the impostumation break inwardly, and is emptied by the urine, there is better hopes: and also, an erysipelas arising about the superficies of the skin, and plenty of water being made, sometimes tis suddainly dissolved. *'Tis ordered* after the manner of other inflamations. *Repellers* must not be applyed long becaus the bladder is membranous, and is easily bound up, the urine suppresst, and the nerves hurt.

II. A *Scab of the bladder is known* by an itching in the pecten, by the strong smel of the urine, by a branny sediment residing at the bottom. It *ariseth* from sharp and salt humors corroding the internal superficies of it. *'Tis cured* in old folks hardly, the humors are partly to be emptyed, partly qualifyed by the four cold seeds, violet flowers, strawberries, either taken inwardly, or outwardly injected through the urethra.

III. There is no need to say what *an ulcer of the bladder is*, it appears from the former.

The signs of it are, scales and matter, which flow forth only with the urine, and sink in it, and so 'tis distinguisht from an exulceration of the urinary passage, in which the matter and filth, either goes before the urine, or appeares presently at first comming forth, or also flows forth without urine. There is a continiual torment about the bladder, pubes, and perenæum; the urine also is thick, and sometimes mixt with matter, sometimes with blood, &c.

The causes are divers, of which in the differences.

The cure is *of little hopes*, both becaus the bladder is membranous, and becaus the urine which is biting by its continual running down, hinders its consolidation. *'Tis ordered* after the manner of other ulcers.

The differences are taken cheifly from the causes.

I. One is from *cantharides*, and *then* if it be lately, we must give milk plentifully, by and by consolidate. If it be inveterate, it must be cured as other ulcers.

Another is from *sharp urine*, which the use of pure wine and hot meats hath caused, and *then* we must act with cooling diureticks.

Another from *sharp or salt humors, as it were knawing its internal superficies*, and then, 1. *We must empty* with cassia and turpentine, 2. *We must temper them* with water lillies, lettice, endive, &c.

Another from *the stone*, of which formerly.

II. One is in *the bottom*, in which the pain is felt about the pubes.

Another *by the urinary passage*, in which at the time of pissing the pain is felt more; and especially when they begin, and when they make an end to piss.

IV. The cure *of a fistula*, see in *Langius*, l. 3. epist. 5.

Article, 3. *Of the straitness of the Urinary Passage.*

The straitneß of the urinary passage, is an interception of the same proceeding from its causes and inducing a stoppage of urine.

The signs, causes, and cure, If you consider this affect in general, have nothing singular.

The differences are taken from the causes.

I. One is from *obstruction*, which is caused, 1. Either from *the stone*, which *is known by this*, that signs of the stone were precedent, the urine is sometimes made freely, sometimes the stone falling from the bottom of the bladder into its orifice, 'tis suddainly stopt, the pain urgeth most at the root of the bladder; *The cure* consists *in removing* of the same, *by* shaking of the thighs if it be great that sticks at the orifice

orifice : *by* bringing it out of the extremity of the urinary paſſage, if it be ſmal, and can be moved out of its place : *by* laxative fomentations, and things that break the ſtone, if it cannot be moved out of its place with the fingers. 2. Or *from clotted blood*, which is known by this, that a wound or rupture of a veſſel went before the blood was poured forth, with the urine; outwardly common aſhes may be applyed with honey. 3. Or from *matter*, which either was in the kidneys, or bladder, or by the breaking of an impoſtumation in the upper parts was carried thither. 4. Or from *thick and viſcous flegm*, and then the urine is almoſt totally ſuppreſt, there are preſent ſigns of flegm; we muſt uſe things inciſive and attenuating.

II. Another is from *a conſtipation*, by a caruncle, a calloſity, a wart, growing in the paſſage of the urine, which *is known* by this, that neither the urine is piſt out freely, nor the ſeed ſent forth, great pains are preſent; tis tryed by a catheter or wax candle put in. But becauſe the urine alwaies flows alike from the ſtone, becauſe 'tis never almoſt wholy intercepted by a flegmatick obſtruction, upon that account 'tis known. *It is cured by things that waſt, and conſolidate.* Of thoſe is commended, premiſing univerſals, *oyl of Mercury* with a little ſugar of ſaturne and camphure, (amongſt which I reckon the decoctions of China and ſaſſafras) *the pouder* made of mercurius dulcis half an ounce; crude antimony one ounce; tutty prepared two drams; of the uſe of which conſult *Hartmans* Chymiatry.

III. Another is from *compreſſion*, which is cauſed, *either* from the coldneſs of the right gut; or from the inflamation of the neighboring parts, or from the ſwelling of the yard, and neck of the bladder, or the contorſion of the bladder; or the falling down of the bladder into the Cod. *The Cure* muſt be directed againſt the diſeaſes.

Chap. 2. *Of the ſymptoms of the bladder.*

Article, 1. *Of the incontinency of the urine.*

THe *Symptomes of the bladder are, incontinency of the urine, a diabetes, an Iſchury, a Strangury, dyſury, bloody piſſing, purulent, &c.*

Incontinency of the urine, is a ſending forth of the ſame, by reaſon of the reſolution of the ſphincter muſcle, or compreſſion of the bladder, without any ſence of acrimony and paine, beſide the wil of our command.

There is no need of *Signs* in an affect ſo manifeſt.

The cauſe is caſt upon the reſolution of the ſphincter (of whoſe cauſes in the differences) and the compreſſion of the bladder; which comes to paſs, *either* from a convulſion of the muſcles of the belly, *or* from the greatneſs of the young one about the laſt months, *or* from a tumor placed upon the bladder: of al which reſpect muſt be had in the cure.

The cure varies according to the nature of the Differences.

The Differences are taken from the cauſes inducing the reſolution of the ſphincter, and the time.

I. One is from a palſy of *the nerves*, which from the loines are inſerted into it, by reaſon of which it cannot contract it ſelf: and then 'tis harder to be cured, if the ſpinal marrow be affected or the muſcle it ſelf wounded. The cauſes by reaſon of which a palſy comes, muſt be inquired from its chapter, and as they vary, ſo the cure muſt be varied.

Another is *only from the laxneſs and ſoftneſs of the ſphincter*, and *then* the patients can neither endure the acrimony, nor abundance of urine, when the animal powers are aſleep. For the cure are commended, *Diacyminum*, *Frankincenſe* drunk in wine; *the throat of a cock*, roſted and dryed, that it may be ground to a pouder, given at night in aſtringent red wine. *The bladder of a goat* dryed in an oven and poudered given likewiſe one dram weight.

II. One alſo *is diurnal*, which afflicts the apoplectical and paralytick.

Another *Nocturnal*, which is wont to happen to children, by reaſon of the cold and moiſt diſtemper of the muſcle, or not thinking of it: in ſucceeding yeares, the muſcle of the bladder growing dryer and ſtronger it ceaſes. By reaſon of continual drinking for the moſt part it follows thoſe of riper years to their death.

Article, 3. *Of a Diabites.*

A Diabetes is a moſt quick and plentiful piſſing of the drink unchanged, ariſing from the intenſe attractive faculty of the kidneys, and afflicting with a ſtrong perpetual thirſt.

The *Part affected* is the kidnies, yet so, that the bladder also oppreſt with the plenty of urine, conſents.

The *Signs* are plentiful piſſing, little or not at al changed, a ſtrong thirſt, nor any ſatisfaction from the taking in of any liquor, a paine, pricking, and heavineſs about the loins, a coliquation of the whole body, the belly dryed and withered.

The *Cauſe* is controverted amongſt phyſitians, we hold 'tis the intenſe attractive faculty of the kidnies, ariſing from a very hot diſtemper of them, which is cauſed by an afflux of ſharp and biting humors, viz. choller and ſalt flegme, impacted in the ſubſtance of the kidnies: the too great largeneſs of the emulgent veſſels and ureters, the heate of the liver, peſtilential feavers, the weakneſs of the ſtomachs retentive faculty, doe help. Thus when the kidnies draw plenty of ſerum from the veins, and cannot contain it by reaſon of their weakneſs, they ſend it to the bladder, the veins again draw from the liver, this from the ſtomach, whence the orifice of this being emptied and dryed, there ariſeth a continual thirſt, &c.

The *Cure* is *too difficult*, and for the moſt part paſſeth into a hectick, and dryneſs of the whole body. *'Tis ordered.* 1. By things that correct the diſtemper of the kidnies, where bleeding alſo takes place. 2. By things that dul the acrimony of the humors, and make the blood, and with it the ſerous humor flower to motion. *The eſſence of crocus martis* deſcribed by *Crollius*, *Baths made of ſmiths water*, drink, but little of the *decoction* of harts-horn, ſalt of corals, &c. are thought to be prevalent.

As Concerning the *Differences*, 'tis only one.

One is an *exquiſite diabetes*, of which we have now treated.

Another *ſpurious*, which is nothing elſe but a colliquative flux of urine, while the juyces in the veins, or in the ſubſtance of the body are changed into a ſerous matter, which attracted by the kidnies, ſlides through them, and deſcends to the bladder.

Article. III. *Of an Iſchury.*

An Iſchury is a ſuppreſſion of the Urine by reaſon of the diſappointment of the expulſive facu'ty, ſo that none of it can come forth.

There is no need of *Signs* in an affect ſo manifeſt.

The *Cauſe* is the diſappointment of the expulſive faculty, the cauſes of which we ſhal explaine in the differences.

The *Cure muſt be haſtened*, leaſt it regurgitate into the whole body, oppreſſe the liver, infect the blood, and cauſe a danger of ſuffocation. Oftentimes the humors putrefie, feavers are kindled, and unleſs they piſſe before the ſeaventh day, they dye. *There is no cure* if it ariſe by reaſon of the deadly concourſe of fits; if it come from a wound of the back bone or luxation of its vertebræ. If the hickops or a teneſmus come upon it. *It reſpects.* 1. *The ſymptom it ſelf*, that the urine be provoked, here meet us, a preſſing of the belly with holding of the breath; putting up of a catheter, unleſs an inflamation doe hinder, or of a wax candle dipt in oyl of ſweet almonds; ſuppoſitories and ſharp glyſters, by reaſon of the communion of the right gut with the bladder, *fomentations* of the pubes and perinæum with the decoction of pellitory of the wal, melilot, chamemel. *Cataplaſms* of horſe raddiſh bruiſed and fryed in butter. The juice of a cray fiſh baked and ſtrained through hair, given in wine. The ſalt of beane cods. *The decotti* of buck-thorn in wine; of gilly flowers with their root dryed in the ſhade with wine of quinces. 2. *The Cauſes of the Symptom*, of which in the differences.

An Iſchury *is divided* twofould.

One from *Diſeaſes of the bladder*, which is known by this, that a continnual deſire to piſſe doth oppreſs them, the pubes is diſtended and pained by the collection of abundance of urine by putting in a catheter plenty of urine flowes forth with eaſe. Thoſe *diſeaſes are.* 1. *A ſtupidity*, by reaſon of which it feels not its ſpur, either by reaſon of a palſey and obſtruction of the nerve, or the averſion of the ſpirits; and *then* although the bladder be ful, there is no deſire to piſſe, nor no paine felt. 2. *A cold diſtemper* contracted from cooling cauſes, and *then* ſuch cauſes went before; diuretick muſt not be uſed unleſs the body be purged firſt. 3. *A ſtreightneſs*, either by *reaſon* of a tumor of the muſcle compaſſing the neck; or by *Reaſon* of a ſtone, and other things formerly alledged, if from this, 'tis ſomtimes cured with an emulſion of the ſeeds of purple violets made with ſpeedwel water. 4. *Too great an extention*, & *then* the urine hath been retained too long againſt the wil, we muſt act with fomentations of pellitory of the wal with oyl of ſweet almonds.

Another is from *the ſtreightneſs of the urinary*

nary passage, which is known from hence, that the urine is not voided by compressing the bladder, and that a catheter is difficultly put up. See *the Cure* in its chapter.

II. One is *exquisite*, of which we treated even now.

Another *Spurious*, which is knowne by this, that the bladder is empty, so that no water flowes forth though a catheter be put up. There is no heavinesse or distention, or paine perceived about the pubes though you presse it. It *ariseth* either *by default of the Kidnies*, which do not attract, or expel the matter of the urine, either by reason of its owne diseases, of which formerly, or by reason of some external error, viz. because the serum is either consumed, or converted to some other parts; Or *by default of the uriters* which *either* are bound up, *or* obstructed, and then the patient was subject to the paine of both kidnies, there is a great heavinesse in the loins, and somtimes a vehement paine torments every where, there is little or no desire to make water. But the *specificks* in this disease are thought to be, *earth worms* in number five, drunke with sweet wine. *An egg-shel* purged, from which a chickin hath been hatched. *Goats piss* dranke warme, *its* caule and guts applied to the belly, &c.

To *an Ischury* belong, *A deminution of the water*, which in malignant and acute feavers is therefore bad, because it is a signe that the nerves are affected. And the *slowness of urine* when it is voided at longer distances than it was wont; because they differ from an ischury only gradually, therefore we wil create no more of them.

Article. IV. *Of a strangury.*

A strangury is a voiding of urine by drops, made with or without paine, and a continual urging to piss, arising from a continual goading of the expulsive faculty of the bladder, by reason that the sphincter is affected, or from the weakness of the retentive faculty oppressed with the least burthen.

The *Signs* of an affect so manifest are evident.

The *Cause* is explained in the definition, viz. the irritation of the expulsive, or weakness of the retentive facculty, but from whence they are, shal be expresst in the differences.

The *Cure is of little or no Hopes almost*, if it come upon an Iliack passion proceeding from an obstruction of crude and thick Humors, no Feaver following it, which may attenuate the Humors. *'Tis ordered* according to the diversity of the Causes, of which hereafter.

The *Difference* is taken from the Causes.

I. One is *with pain* proceeding from the irritation of the expulsive faculty, and it *ariseth*. 1. From the Acrimony of the Urin, which either is inferd by *external Causes* as meat and drink, hot and Salt, new and dreggy drink, which when it cannot be concocted commodiously, and hath a power to ferment the Humors, and looſen the Belly, if it be quickly carried to the Kidneys, 'tis carried crude to the bladder, and stimulates it. *Then* drinking of spanish or Mallego wine, does good, Nut-megs, Goates Fat put on the Navel. Or from *internal*, Viz. *Sharp Humors*, either produced there, or sent from elsewhere, which being viscous do by their clamminesse stick to the Orifice of the bladder, and somtimes by their long continuance exulcerate the same. *They are known* by this, that the Urin is red and Yellow, there is a sharp biting felt, with a heat and thirst. *The Cure* requires *emptying* by Cassia and Turpentine. *Tempering* by coolers and moistners, and a bath of sweet Water. *Promotion of the Urin*, By Salt of Acorns, of bean stalks, half a scruple; Oyl of Wax, three drops; in the Decoction of red Vetches. By *the pouder* of stones squeezed from the Heads of Snails, given in Wine. 2. *By matter* sent from the Liver, Kidneys, or else where, and then some of it wil appear in the Urin; whey with Sugar of Roses is good. 2. *From the Stone*, which Excoriates the bladder, to which we must have respect. 3. From *an inflamation*, of which was spoke formerly. 4. *From the affects of the neighboring Parts*, for upon an Inflamation of the right Gut and Womb, and purulency of the Kidneys there follows a dropping. Upon the falling down of the Womb, the Urin comes by drops, and is a little biting.

Another is *simple and without pain*, which *is known* by a white, Watry Urin, by the Age, Complexion, cold course of Diet, pregression of a burning Feaver. It *ariseth* either *from the refrigeration of the bladder it self, and the Muscle shutting its neck*, and then Diagalanga, Mithridate, &c. are wel taken inwardly.

Oyl of Rue is wel outwardly applied. Or from *a Compression of the bladder*, which is wont to happen in great Bellied Women.

Article, V. *Of a* Dysury.

A Dysury is a making of burning Urin, somtimes little, somtimes much, with pain, without interruption, arising from Causes both external and internal, affecting the Urinary passage.

The SIGNS are evident, for the pain is easily perceived by the Patient.

The CAUSES are whatsoever can dissolve the continuity of the Neck of the Bladder, or of the urinary Passage, or Cause pain in pissing.

The CURE is *Difficult* if it fal upon Decreped Old men, if a suppression of the Urin happen with it. It *respects*. 1. The Cause, which must be moved by the aforementioned emptyers, which ought to be followed with essence of Turpentine, one dram; with Parsley water, and Syrup of Citrons. 2. *The Pain*, which is mitigated with warm Milk cast in by a Catheter, by dipping the privities in a Vessel ful of Milk, by a Cataplasme of Pellitory of the Wal with Oyl of Scorpions, &c.

The Causes raising the pain do afford us *the Differences*.

One is from *things external*, as Cantharides, and then milk is good; from Poyson, and then we must act with things alexipharmacal.

Another from *internal* which, are, 1. *The Acrimony of the urin*, of which formerly. The water of bean flowers or its fresh Cods given with Syrup of Liquorish or Poppies, six ounces weight before meat is good. Also *Fallopius his Electuary*, in *Schenkius* in Exoter. Experim. Cent. 4. 19. 2. *An Inflamation*, whose pain is encreased the bladder being contracted to send forth the Urin, and compressed after the emission, which oftentimes an exulceration follows. 3. *A Stone* striking against the Neck of the Bladder in pissing. 4. *The Seed* moved in men but sticking in the Passage, and by an Acrimony contracted corroding the Passage, which is wont to happen in the French Pox. 5. *A white and milkie matter*, which somtimes is sent forth in such abundance, that when 'tis setteld it fils one half of the Chamber Pot. The which ariseth from a Vitious Concoction, in which the Salt and Tartarous parts are not separated, but are attracted by the Kidneys. It *is Cured*, universals premised, by the use *of Hyppocrist* or Mallago Wine.

Article, VI. *Of Pissing of blood, matter, and Hairs.*

Bloody Pissing, is a voiding of Blood together with the Urin arising from the heaping up of the same in the Bldder.

The SIGNS are, that the Urin doth not shine, and hath the Color of Water, in which the flesh of beasts new killed is washt.

The CAUSE is explained in the definition, and in the Difference more shal be said.

The CURE *must be hastned*, if the evil be inveterate, least it lead to a Consumption or cachexy. If it be cast forth in abundance, least it stop in the Bladder and putrefie. It must be turned against *the Cause*. *The Symptoms* requires, other things being alike, things astringent, condensing, and consolidating; amongst which do excel, *Yarrow* with the white flower, *the Tincture* of emralds, *the Arcanum* of agrimony and Cinquefoil. *Mynsichtus his Decoction*, &c.

The *Difference* is taken from the Parts that pour forth the blood.

One is from *The Kidneys*, which *is known* by this, that it is plentiful, is exquisitely mixt with the whol Urin, that being as it were diluted with it, 'tis thin, ruddy, liquid and settles without clotting together. *It ariseth* either *from the Anastomosis of some Vessel in them*, and *then* 'tis made plentiful and high colored; or some violence or wound hath went before, or there are signs of Fulness, or the blood is too thin. Or *from the corrosion of a Vessel*, and *then* the blood is voided in a lesser quantity, especially at the beginning. Or *By a Diapedesis*, and *then* the Urin is lightly dyed with a red color. *The Cure* also requires opening a Vein in the Arm, which must be followed with the use of astringent means inwardly and outwardly. *The Trochisks* of *Gordonius* are good.

Another is from *the Liver* either weakned, or oppresst with blood, or affected with the same diseases as I said even now; and *then* there are no signs of the Kidneys affected; we must consult with the Chapter of the diseases of the Liver. Hither belong the suppression of the Hemorrhoids, of which in its place; a wound

of

of the ureters from stones passing through them, from which very little blood flows forth, &c.

Another from *the Sphincter muscle of the neck of the bladder*, and *then* the Urin is not equally cored over with it, the blood setling goes into clots, the pain for the most part oppresseth in pissing, and burns as it were the Root of the Yard, other signs either of an Ulcer, or of a Vein broke are present, *the Cure* is the same.

Another from *the inward Passage of the Yard*, and *then* it oftentimes comes forth without the Urin; that which comes with the Urin, clotting together presently sinks.

II. *Purulent Pissing, is a voiding of matter with the Urin heaped up in the Bladder.* 'Tis heaped up. 1. *By default of the bladder it self*, either because that is troubled with an Ulcer, or because the blood contained in the bladder is turned into matter, and then the matter is voided less mixt with the Urin with branny Scales. 2. *By Default* of the ureters, and then a little swims a top like Hairs. By *default of the Urinary Passage, of the Spermatick Vessels, and the parastatæ*, and then in the first place it comes forth sincere. 4. *By default of the Kidneys, Liver, breast*, in as much as those parts do transmit matter through the Veins to the Bladder; and then the matter is accurately mixt with the Urin, if any thing thicker be a Part, it flows forth towards the end.

III. *A Pissing of Hairs or Trichiasis, is when with the Urin a mucous matter is voided somtimes like to Hairs, somtimes to thin Leaves.* Those Hairs sommimes equal the length of one or two hands breadths. *The Cause* of them is a thick and viscous flegm, dryed and knit together in the Veins by heat, which in its long passage through the narrow Veins of the Kidneys and ureters is extended to so great a length. See concerning this *Horstius* his fifth Section. *Epistol. medica.* In the Cure, *Spirits of Turpentine with Syrup of Marsh-mallows* is good.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, X. *Of the Affects of the Genital Parts in Men.*

Chap. 1. *Of their Diseases.*

Article, I. *Of the Diseases of the Stones.*

THe Diseases of the genital Parts in men have under them the Diseases of *the stones, Cods, and Yard.* The principal *Diseases of the Stones*, are which follow.

I. *A Distemper*, and that either *hot*, which *is known* by a proneness to Venery, by too much and hot Seed, by heat of the stones, by swelling of the Veins about them with blood. 'Tis *Cured* by a contrary Diet, and cooling Medicines, *of Lettice, Water-Lillies, Purslane*, but especially *by those compounded of Sugar of Saturn, and sallow Leaves. Or Cold*, which *is known* by little and Watry seed, by casting it forth with little or no Pleasure, little desire to Venery, cooling Causes went before, or immoderate and unseasonable Venery. 'Tis *Cured* by a contrary Diet, and taking of medicines, inwardly, *Betony, Calamint, Marjoram, Sage, Nettles, Nutmegs, Diamoschum.* Outwardly, *Oyl of Costus, Spike, of Aunts.* Or *moist*, which *is known* by this, that the Seed is cast forth too soon. Or *dry*, which yeilds little and thick. *They are Cured* by their contraries.

II. *A Tumor*, which either is an *Inflamation*, in whose Cure (for of the rest I have nothing to say) observe. I. That whiles Medicines are applied to them, the ligature ought alwaies to tend towards the upper parts, that they may not hang down too much, and the defluxion may be less. 2. To intercept the flux, a defensive must be laid on the side of the Pubes, where the Veins and Arteries from the belly tend to the stones and Cod. 3. Other things being alike, *the Decoction* of Agrimony with Wine and Vinegar is commended. *The Root* of wild Cowcumber likewise boyled. *The Herb* Paris green, bruised and applied, &c. *A Schirrus* or another cold and hard Tumor, which

which oftentimes ariseth from an Inflamation ill Cured. 'T*is taken away with a Cataplasme*, of Littice Roots boyled in sweet wine with the flowr of Flax, Barley, Fænugreek, Onyons, &c. Which must be followed with *a Liniment* of the Balsom of Sulphur, and *the Plaister* Diasulfuris. Or *an inflation*, for the Cure of which serve the Leaves *of Henbane* and a drauft of Juniper water, one ounce weight every day with the Rowls of Diacyminum.

III. *Ulcers*, which becaufe they are in a moist place are dangerous, and somtimes turn to a Cancer or Gangreen. They ought to be washt with *the decoction* of Roses, Leaves of Speedwel, and Plantan; they may be mundefied with *the Ointment* of the Apostles.

IV. *A Contusion*, which is joyned with a great pain, it corrupts their Oval Figure, and oftentimes takes away the power of generation. We must timely oppose the pain, least a Defluxion be Caused.

Article, II. *Of the Diseases of the Cod.*

The Diseases of the Cod are, *Inflamation, Excoriation, Wounds, Ulcers, and Rupture.* Of them there is no need to say any thing. *An Excoriation* is often Caused by the Urin, the upper skin being corroded, and 'tis Cured by sprinkling of Pompholyx, or dryed Myrtle finely poudered, fearced, and mixt with Frankincense or Myrrh.

A Rupture of the Cod is a Tumor of the same, arising either from the cause falling down into it, or from wind or water collected there, or a masse of Flesh generated there.

The *Species* of it are four, if you consider *the Differences.*

I. One is *windy*, or a Pneumatocele, which *is known* from hence, that the Cod, somtimes also the stones is very much distended without a weight & heavines; the wind is felt if the Cod be prest with the hands, and is removed from place to place with a noise. It *ariseth* from winds, which are either collected there, *or* transmitted from the neighbouring Guts and Belly: and 'tis most familiar with Children. 'T*is Cured* (premising universals) by things discussing outwardly and inwardly applied. *A Cataplasm* of Bay-berries, the flower of Beans and Fenugreek, with Bran, the pouder of Cuinmin seed, ammoniacum, turpentine, oxymel, and oyl of bays mixt together is good.

II. Another is *watry*, or a hydrocele, which *is known* becaufe there is perceived a waving, the cod appeares as it were shining; the tumor alwaies continues at the same bigness, neither doth it go up into the belly by pressing it. It *ariseth* from water, which for the most part flows thither from the belly, for those causes which are mentioned in the dropsy. *It is cured*, 1. *By prohibition* that the watery humor be not generated, or flow thither, of which see the differences. 2. By *emptying the water fallen thither* either insensibly, to which end the former cataplasme wil serve; or sensibly by opening of the cod, of which see Authors. 'T*is divided* diversly, 1. One is from *water only* distending the cod, another also from *wind* joined with it, in whose cure we must have regard to both: another from *flesh* growing together about the stone, whose cure must be warily handled that it turne not to a cancer. 2. One is *with a dropsy*, and then the cure must be directed against the dropsy; Another *without a Dropsy*, in which although there is not such great plenty of water, that it can raise up the belly into a tumor, that there is somwhat of it collected in the cavity of the belly, by reason of the weakness of the parts, especially an external cause being added, as striking &c. The tumor *either* possesses the whol cod, *or* only one side; and *then* the humor sticks in the erythroidal membrane that conteines the stone. The right stone never, alwaies the left swels. *Or* the fault is in the *left kidny*, through which when the serum cannot descend, it fals through the seminal veine proceeding from the emulgent of the left kidny, into the erythroidal coate; from the cure of which we must either abstaine, or the cod must be opened only in the lower part. *Or* it is not, and then the cod must be cut in the upper part neer the groin, that both the humor may be emptyed, and the afflux of more through the skar of the erythroidal coate be hindred. See *Frabricius* his observations. 3. One is when *the water is conteined between the erythroidal coat, and the darton*, in which the tumor is rounder, like an egge, the stone is hidden from the sight and touch, the cod it self is more white and is distended little or nothing: another is, when *'tis out of that betwixt it and the adjacent skins*, in which the stone is to be felt, the cod is more distended. Another when 'tis *in its proper skin or coate growing over it*, in which the tumor is every where globical, resembles

bles the draft of another ſtone.

III. Another is *a fleſhy rupture* or a Sarcocele, in which ſomthing fleſhy is bred: *It is known* by a hard tumor, increaſed by little and little, afflicting without a tumor of the groine, by which it is diſtinguiſhed from a rupture of the guts; 'tis for the moſt part in the right ſtone becauſe nature doth moſt comodiouſly caſt off the blood to the ſtones by the ſeminal veine iſſuing from the cava. *It ariſeth* from an impure blood flowing to the teſticles and cod, by degrees dropping from the membranes of the veſſels, and changed by nature that is never idle, into a ſubſtance like unto fleſh. *'Tis cured*, 1. *By repreſſion* with repellers and dryers, the pouder of the root of Reſt-harrow is commended, 2. *By cutting*, of which ſee Authors. *'Tis divided* into a *ſcirrous one*, in which there is neither pain not heat; *and a malignant one*, in which there is felt a pricking pain.

IV. Another is *various*, or a Cirſocele, in which the veſſels nouriſhing the ſtones are dilated like to varices. *'Tis known* by this, that the veins are ſweld, and wreathed and rounded like ſhootes of vines, the tumor is oblique and rowled up like a grape; ſpring and autum, the the guts being diſtended with wind, or the feet cooled, a pain accompanies it. *It ariſeth* from a thick melancholy humor poured into the veſſels. 'Tis hardly cured, things drying, and hanging the ſtones in a truſs are good. Cutting can ſcarce be uſed without hurting of the ſtone.

Article, 3. *Of the diſeaſes of the Yard.*

The diſeaſes of the yard are various.

I. *A diſtortion*, which befalls thoſe, who indulge too much to venery, and have their genitals along while diſtended; for then the ſpirit concluded in the ligaments, acting violence upon ſome part of another ligament doth relax it, and makes it bunch forth like a beane or glandule, by which means it comes to paſs, that how much is added to the accuſtomary latitude of the part, ſo much is bated of its longitude: 'Tis cured by abſtinence from venery, and by thoſe things which ſerve for the cure of a rupture. See *Arantius*.

II. *Inflation and inflamation*, of which, that doth ſomtimes ariſe from lying with a woman whoſe womb is uncleane, and repleat with ſharp humors; we meet with nothing ſingular concerning them.

III. *Warts and excreſcencies*, which *either* are upon the top of the nut, which degenerate into a cancrous Sponginеſs; *or* they bunch out about the fleſh of the nut and under the foreskin it ſelf, and they are ſoft, ſpongy, alwaies moiſt, ſmelil, and are dayly increaſed, and are familiar with them that are troubled with the French Pox. They require Chirurgery.

IV. *Ulcers*, which are divers, 1. Some are *external*, which are apparent to the ſight, yet ſomtimes when they are about the nut and foreskin, they cannot be ſeen by reaſon of the ſwelling of the part. If the region of the nut be exulcerated, all medicines ought to be drying. Others *internal*, ſticking in the urinary paſſage, *which are known* by the pain cauſed by the urine paſſing by, and the matter coming forth before the urine, the yard ſwelled and diſtended. They ariſe *either* from an impoſtumation following an inflamation, or from ſharp urine, or from rough ſtones, and rough things hurting in their paſſage. *They are cured* as others be. 2. Some *penetrate* that both external and internal parts be exulcerated, and the ulcer pierceth even to the urinary paſſage. Others *not ſo*. 3. Some are old, *ſordid and rotten*, which are wel waſht with hydromel and wine. Others are *virulent*, as thoſe that happen in the French Pox, in which we muſt uſe precipitate mixt with a convenient linement, til that which is callous be waſted away. If a gangrene or mortification follow, it muſt be cut.

Chap. 2. *Of the Symptoms of the genital parts in men.*

Article, 5. *Of the generation of ſeed hurt, and the erection of the yard.*

THe ſymptomes of the genital parts in men are, *the generation of ſeed hurt, the erection of the yard hurt, Lechery, a Priapiſme, a Satyryiaſis, and the runing of the Reins.*

The generation of ſeed hurt is, when either it is not generated, or not ſuch as may ſerve for procreation. 'Tis twofold; therefore one is *when the ſeed is not geneted*, which comes to paſs either *by defect of matter*, or by the things non natural, as hunger, watchings, or by things preternatural drying up and waſting it, eſpecially the diſeaſes of the heart, *or by reaſon of the attraction of the ſame by other parts*, which comes to paſs both in children, and fat folks, in whom al the nouriſhment is changed into the ſubſtance of the body.

Or

Or by reason *of a fault of the faculty of the genital Parts*, whether it be innate, or acquired, as a defect of the Vessels generating or carrying the Seed, bewitchings, inchantments, &c. Another is when *'tis not generated fruitful*, which comes to pass, *either* by reason the matter is not commodious, too hot, moist, or dry. *Or* by reason of a cold distemper of the genital Parts, which sometimes is contracted by too much lust in youth, by applying mercurial Oyntments to the genitals, &c. There is no need *of Signs*. *The cure* must be directed against the Causes. But the Seed is increased by the greater *Root* of Dogs stones, cubebs, the Yelk of a new laid Eg with Wine and a little Oyl of sweet Almonds. *Crollius* his *essence* of *Satyrion*, *Mynsichtu*, his *Confectio* Magnanimitatis, and *de Succulata Inda*.

II. *The erection of the Yard hurt, or a viril impotency is, when that by no endeavors can be erected, or extended.*

There is no need to treat of *the Signs*. *The Causes and Cure*, are expounded in the Differences.

The *Differences* are taken from the Causes.

For there is one viril impotency from *the defect of Seed*, either because it is not, or because it is but little, or crude, and doth not stimulate, of which we have spoke formerly.

Another is from *the defect of vital spirits*, *either* because they are few by reason of the coldness and dryness of the heart, *or* because they are called another way, which happens in medications, fear, bashfulness, &c. *Or* because they are not received by the substance of the Yard, either by reason of a stupidity of the Member, or by inchantments.

Another is from *a resolution of the Yard*, effected by those Causes, which we mentioned in a Palsie. See Medicines serving for this Disease in *Stockerus*, l. 1. c. 55. Where he makes mention of Satyrion, five ounces; which ought to be mixt with the blood of Sparrows, ten ounces, and be held under the Arms. Some say that lust is wonderfully provoked, if the great Toe of the right Foot be anoynted with Oyl in which Cantharides have been dissolved. And also a simple washing of the Privities with *the Decoction* of Columbines, which must be followed with a Fumigation of a dead mans Tooth poudered, and cast upon the coales.

Article, II. *Of Lechery, a Priapisme, and Satyriasis.*

Lechery is too great a proneness to Venery by default of the Seed, sometimes also so great, that 'tis turned into madness. The fault of the Seed consists, 1. *In the plenty of it, either* from the abundance of blood, *or* from the heat of the Vessels dedicated to the generation of Seed, by whose means more is attracted. *In the Cure*, we must act with things that consume the Seed, amongst which *Mint and Sugar of Saturn* excel. But a Vein must be opened also, and the Patient Purged. 2. *In its Acrimony*, contracted from hot meats, Medicines and sharp things, which must be opposed. 3. *In its Commotion*, whiles seeking a Passage, it causeth an itching.

II. *A Priapisme is an erection of the Yard without any desire of Venery, arising from a windy Spirit filling up the hollow Nerve of the part.* That Vaporous spirits ariseth *either* in the Nerve it self from a cold distemper, *or* in the Yard and Vessels from a thick and crude Humor by an unproportionate heat, and here the distilled Oyl of *Rue* takes place. For the most part 'tis by Reason of the mouths of the Arteries are too open and dilated, pouring forth plenty of Spirits, because perhaps the Loyns and Kidneys being heated they grow hot, and are filled with much spirits, which happens to those that abound with much blood. *In the Cure*, universals premised, *Water Lillies*, *the Seed of the Chaiste Tree*, and other coolers ought to be applied.

A Satyriasis is a Palpitation of the Yard following an inflamatory disposition of the spermatick Vessels with a distension. It happens rather to young men, than to other Ages; *the Cure* must be hastened least they fal into a resoultion or Convulsion of the Seminary Vessels. We must have a Care *of Purges* in it, unless Perhaps we can make an aversion by Vomits: and from things that move Urin.

Article, III. *Of a running of the Reins.*

A Gonorrhea is a too great and involuntary shedding of the Seed, arising from its own fault and the fault of the Spermatick parts.

The

The SIGNS are evident, the ſeed is ſhed a gainſt their wils, without luſt and dreams of luſt, without any ſtifneſs of the Yard, with no ſenſe of delight, or very little, from whence is cauſed a ſlenderneſs of the whol Body, about the Loyns eſpecially, with a paleneſs and hollowneſs of the Eyes.

The CAUSE and CURE ſhal be explained in the Differences. The Flux is ſtopt by the magiſtral of the bone of the fiſh Sepia, given from ſix grains to half a ſcruple with old conſerve of Roſes. By *fixt Antimony* with Plantan Water.

The *Difference* is taken from the Cauſes.

One is *by default of the Spermatick Parts.* 1. *Of a cold and moiſt diſtemper*, which *either* ariſeth from external Cauſes endewed with ſuch a vertue, and weakens their retentive faculty, as too much Venery, *or* from an afflux of Humors, in which Caſe emptying and binding with heaters mixt takes place. It is *the eaſier* Cured, ſo it be new, *the pouder of Turpentine*, given with milk for fifteen daies does good. 2. by default of their *Laxneſs* when their Bladders conteining the ſeed, and the Veſſels that carry it, are too much enlarged and Relaxt.

Another is *by the fault of the Seed it ſelf*, which is, 1. *Plentiful*, by forbearing from Venery, and by uſing meats that nouriſh wel, and *then* bleeding, Faſting, exerciſes do good. 2. *Sharp and hot* ſtimulating the expulſive faculty, which proceeds from the like blood, by reaſon of the heat of the liver and Kidneys; and then a priapiſm for the moſt part is joyned with it, external Cauſes went before. *The Cure* muſt be ordered, by emptying of Choler, by anointing the back bone, and Loyns with cooling Oyntments. 3. Crude, watriſh, and thin, and that *either* by reaſon of the coldneſs of the ſtones, or of things taken, or the like diſtemper of the Liver, and *then* the Seed comes froth even at the touch of a Woman, there are preſent the ſigns of crudity. In the Cure we muſt act with driers and ſtrengthners. *The eſſence of Turpentine* is commended given one dram weight in Syrup of Agrimony. *Or* by reaſon of the abundance of Vitious Humors in the body, which are ſent to the ſpermatick Veſſels, and *then* we muſt act with empriers and good Diet. 4. *Virulent and Malignant*, as is concracted in the French Pox, which *is known* from hence, that at firſt a white Poyſon or ſomwhat Yellowiſh fals from the ſpermatick Veſſels inſenſibly, as wel when they wake as ſleep, which in time putrefies and gets an Acrimony, eats and exulcerates the Paſſage of the Yard, from whence ariſeth a pain, which alſo when 'tis ſtiff does ſtretch a ſtring as it were under the Yard, and in piſſing does goad ſharper as it were in a dyſury; that is ſomtimes hollowed ſo deep, that it breaks outwardly at the upper Skin of the Yard. It *ariſeth* from a weakneſs of the Spermatick Veſſels and ſtones, contracted by that poyſonous Evil, which cauſeth that whatſoever is collected in theſe Veſſels, turns to a filthy Poyſon, which by contagion Pollutes any other body. As concerning *the Cure* 'tis *difficult* in old Men, in al, if it be ſtopt without reaſon. For there is collected for the moſt part an impoſtumation within, ſomtimes about the ſtones in the Epididymis, ſomtimes in the Perinæum, which the Skin breaking pours forth the matter. We muſt abſtain from *things aſtringent*, leaſt it being retained doth corrode the Parts. Dryers and things that reſiſt Putrefaction, as are, *Sorrel*, *Treacle*, *Mithridate*, and thoſe things which are dedicated to the French Pox, do good.

Titile, XI. *Of the Diſeaſes of the genital parts in Women.*

Chap. 1. *Of the Diſeaſes of the Neck of the Womb.*

Article, 1. *Of a Tentigo and Cauda.*

THe Diſeaſes of the Womb are either of *the Privities* or Neck of the Womb, or *of the womb it ſelf*. To thoſe belong, *Tentigo*, *Cauda*, *Straitneſs*, *puſtles*, *condylomato*, *Hemorrhoids*, *and Ulcers*.

1. *A Tentigo or great bit, and the womans Prick, is the growing of the Clitoris into too great a bulk.*

The Subject is the Clitoris, or that Nervous fleſh, hard, which in the Neck of the Womb the Joynt wings of the Privities do embrace, and at the Top of which, that is, the which

swels in desires of Venery.

This manifest affect needs no SIGNS; somtimes the bulk is so great, that it hangs forth through the cleft of the Privity as thick as a goose Neck, and resembles a mans Yard, they have too great desire of Copulation.

The CAUSE is too great an Afflux either of an Humor, or nourishment, by reason of its Laxness which is induced by often touching, and 'tis wont to cause lust at the least rubbing of the Cloathes.

The CURE respects. 1. *The abatement of blood*, and the bringing forth of other Humors, for which ends serve a most slender and cooling Diet, and discussives, especially the leaves of *the lentisk and Olive*. 2. *The taking away* of the same *Excrescency*, where first must be applyed the gentler causticks, *As Alum, Unguentum Ægyptiacum, the lie* of which Soap is wont to be made boyled with Roman Vitriol, adding towards the end a little Opium, and make Trochiskes of them, with which pouder the flesh must be strowed over; at last the flesh must be cut off, either by Ligature, or Section, having a care of an Inflamation.

II. *A Cauda is a certain fleshy substance arising from the Mouth of the Womb, which fils up the womens Privity, and somtimes hangs forth like a Taile.*

The SIGNS and CAUSES are the same, as in a Tentigo, only that Women fear Copulation. The CURE is also the same if it must be cut off, it must be done either with a Horse Hair, or a silken thred dipt in sublimate water, or by Iron.

Article, II. *Of the straitness of the Neck of the womb.*

The straitness of the Neck of the womb, is either a stopping of the same, or of the Orifice of the womb, either by compression, or a growing together.

The SIGNS are, the Flux of the Courses denied, in them in whom they were wont to flow through the Neck, a sense of pain with a weight.

The CAUSE is either *natural*, when it affects from the birth, or *accidental*, of which in the Differences.

The CURE varies according to the Nature of the Differences.

The *Differences* are taken from the Part, and the Causes.

I. One is of *the outward Orifice*, which is called of the Pudendum, in which the Courses, which flow both by the neck and by the womb, are disappointed, there can be neither Copulation nor Conception, because neither the seed nor the man is received.

Another *of the inward*, which is called the Orifice of the Womb, in which the seed received presently flows forth again, conception can in on wise be.

II. One is *by way of Compression*, which is Caused, 1. By a Fat Caule lying on the mouth of the womb. 2. By a stradling of the Thighs. 3. By a stone in the bladder. 4. By a Tumor in the right Gut, of which in their place.

Another is *by way of growing*, which is caused. 1. Either *from the birth*, and *then* either *flesh* stops it, which is red to sight, soft to touch; or *a Membrane*, which is white to sight, hard to the touch. *In the Cure.* 1. The Part being moistned with warm Fomentations, it must be cut streight up taking Care that the Neck of the Bladder be not hurt. 2. The humor must be drawn forth, and a tent must be applyed dipt in a suppurating Medicine. 3. And astringent pouder must be had in readiness for fear of a Flux of blood. 4. The following daies the place must be washt with honey & water, and we must act with things that Cicatrize. 2. Or *after the birth*, cheifly from *an Ulcer*, and *then*, *either* the sides of the Neck are grown together, in which case we must use incision but very warily; *or* there is a Callous substance which first must be cut off with a Pen Knife, *or* a Spongy and Luxuriant flesh, in which first of al we must use dryers and discussives as brithwort, Frankincense, Myrrh, Mastick; afterwards we must apply corrosives without pain, at last we must cut it.

Article, III. *Of the pustles, Condylomata, and Hemorrhoids of the womb.*

Pustles of the womb are, little bunchings arising in the neck of the womb, which by their Acrimony do Cause itching and pain.

The SIGNS are, Itching, Pain, a falling down of Scales like flower, to which we must add a *Speculum Matricis*, that the affect may be the better discovered.

The

The *Cauſe* is cholerick, ſharp, aduſt, and thick humors, which emptied into moiſt and looſe places do inſinuate and immerſe themſelves in them.

The CURE reſpects the cauſes, univerſals being premiſed, where amongſt preparatives prevaile ſyrup of *Fumitory, of ſuccory* with the decoction of hops; topicks diſcuſſing and mitigating the humor, eſpecially baths and halfe baths, which muſt be followed with waſhing the part with wine and niter. But theſe muſt be often repeated.

They are divided into benigne and malligne or venereal, which are ſtuborn and contagious, they ought to be waſht with the water made of aloes the quantity of one vetch, flower of braſs the quantity of half a vetch flower of braſs the quantity of half a vetch pouder'd and mixt with white wine one ounce; plantane water, and of roſe heads each one ounce, and kept in a wide mouthed glaſs.

II. *Condylomata, are ſwellings of wrinkles in the necke of the womb with heate and paine.*

There is no need of *Signes* becauſe they appeare to the eyes, oftentimes if there be many they reſemble a ſmal bunch of grapes. The wrinkles hang forth like knobbs, which appear in the fiſt clutched. But they ſwel more when the courſes flow.

The CAUSE is Thick and Aduſt humors.

The *Cure* in general reſpects *the taking away of the cauſes* and *repercuſſion* and *drying*.

As concerning the *Differences*.

Some are *with an inflamation*, in which the pain and heat is greater, the condylona is hard. *In the Cure* we muſt act with anodyne half baths, and perfuſions.

Others *without an inflamation*, which if *they be new* we muſt repel and dry; if *cold and inveterate*, we muſt firſt mollefie; then diſgeſt and dry. Here take place *the pouder of* egg-ſhels burnt, the oyntment of trochisks of ſteele one dram redeuced into pouder, and mixt with oyl of roſes and wax, adding halfe an ounce of the juice of mulein. *The oyntment of* the mad apple, concerning which ſee a Caſtro, l. 2. c. 25. de Morb. Mulier. If the condiloma yeild not to theſe medecines it muſt be cut off by an inſtrument and aſtringent pouder ſtrewed on.

III. *The hemrods of the wombe, are ſmal ſwellings like unto the hemrods of the anus, raiſed in the necke of the wombe, by an afflux of Feculent Blood.*

The *Subject* is the neck of the womb, for there they are, where the veins doe end, as in the hemrods of the anus: and theſe are lift up by an afflux.

The *Signs* are manifeſt; for they are diſcovered by the ſight, if a ſpeculum matricis be applied, the women looke pale, and are troubled with a wearineſs.

The *Cauſe* is Feculent blood, which when ſometimes it flows to theſe veins not at its due time there ſtopping it becomes thicker, that it cannot penetrate the orifices.

The *Cure* is order'd. 1. *By revulſion* by opening a vein in the arme. 2. *By derivation* by opening another in the ankle.

They are *divided* twofould.

I. Some are *painful*, which by the paine it ſelfe are diſtinguiſht from the courſes, and are cured by things that mitigate the ſame, eſpecially half baths, and *the Cataplaſme of* a Caſtro l. 2. c. 26. de Morb. Mulier. And alſo with opium, which notwithſtanding is ſafer in the hemrods of the anus. Other, *without pains* towhich, what is, and ſhal be ſaid ought to be applied.

II. Some are *open*, which flow *either* moderately, and *then* the buſineſs ought to be comitted to nature. *Or* too much, ſo that the ſtrength is dejected, and there is feare leaſt an evil habit of body be induced, and *then* for revulſion blood muſt be taken from a vein of the arme at ſeveral times. For purging, myrobalanes, tamarinds, and rhubarb ſerve. At laſt we muſt act with things that ſtop blood.

Others are *blind*, from which no blood at al flowes forth. The *Cure* is perfected, by emptying of blood, by emollition and fomentation of the part, with mollefiers and things opening the mouthes of the veins, and diſcuſſing the matter. By artificially opening the ſame, concerning which things ſee the chapter of the hemrods of the anus.

Article. IV. *Of the ulcers of the neck of the wombe.*

There is no need to define what *the ulcers of the neck of the womb* are.

Their *Signs* are, a pain and perpetual biting in the ſame place, which by little is increaſed, eſpecially if any thing abſterſive be caſt in; a flowing forth of ſanious humors and matter by intervals, ſomtimes with blood, if the ulcer be great, or the courſes flow. A piſſing often and hot, if the orifice of the bladder be drawn into conſent; a paine in the fore-

part of the head extending it selfe to the roots of the eyes, if the head. A smal feaver which in process of time growes flowe, with often horrors, &c.

The CAUSES are al external and internal things, which by their acrimony can dissolve the continuity in that part, of which in the differences.

The CURE is *difficult* becaufe it is in a place of exquisite fence, moist, and which hath a consent with many parts. *'Tis Ordered* the same manner was spoke in general in the first book. To inhibit the paine, *Steeled milk* cast in doth good. For drying, *baths.*

The *Differences* are various.

I. Some are from *external causes*, as medicines, hard labor, violent copulation. And others from *internal*, as are the secundine corrupted, the flux of blood retained, the flux of the womb, a virulent gonorrhæa, the french pox, Inflamation. Humors flowing thither, either from the whole, or a part, or generated there; al which must be attended in the cure.

II. Some are *superficial*, from which little matter flows, and medicins may be layed upon them. Others *profound*, which are in a contrary way, and the medicines ought to be injected.

III. Some are *Milde* with little matter, thick, not stinking, in which both the gentler absterfives, as honey of roses with barly water, whey with sugar or the decoction of lentils, and the more benigne astringents take place. Others *sordid* with plenty of matter, and flowing forth with paine, in which we must act with stronger things. *The mundifyer of smallage* in Castro l. 2. c. 29. is here commended. Others are *eating* with a colored matter, green livid, stinking, flowing forth with paine, in which *aloes and wormwood* amongst mundifers are the cheife.

IV. Some are called *Phagades*, which are smal and longe ulcers, eating the skin of the necke of the womb. *They are known* both by the paine and blood caused in copulation; and by sight, if the neck be looked into; and they are like unto them, which in winter time are wont to rise in our hands. *They arise* many waies. 1. *Externally*, from a painful labour, violent copulation, and then we must use an astringent glyster. 2. *Internally* from an inflamation, condylomata, an afflux of sharpe humors, which must first be taken away by purgers, before we come to topick medicines. There is commended for them, *the fatt* which distils from wooden spoones used to boyl in kitchins; if they be a little moved to the fire and burnt; and also the oyntment pomada. Others which *leave behinde them a Fystula*, which is voide of paine, unless it come to a nervous part, sometimes it passes to the bladder and right gut, and the excrements are cast forth through it. If it be ancient it ought to be left to a palliative cure; in which at fit seasons the body is purged, but the callus which is alwaies joyn'd with it, if that be curable, after drying of the part, being molefied by vulnerary potions, must be wasted, either by cutting or burning.

Of a cancer and gangrene, I meet with nothing singular. *That* is generated by menstruous blood adust, and when scirrous tumors continue long. *This* in this place, ariseth from an inflamation, cancer, and ulcers there il cured. For while these parts are moist and abound with excrements, they are easily corupted and perish.

Chap. 2. *Of the diseases of the womb.*

Article, 1. Of the distemper of the womb.

The diseases of the womb are, *distemper, straitness of the vessels, inflation, inflamation, a scirrhus, dropsy, falling down of the womb, wounds and ulcers.*

The distemper of the womb is a swarving of the same from its natural temper, to a preternatural distemper, arising from external and internal causes.

'Tis divided twofold.

I. One is *hot*, which *is known* by a proness to venery, by the scarceness, yellowness, blackness, adustion, acrimony of the courses, and by their difficult and inordinate flux; whence in process of yeares they become hypochondriacal, by the early growing of hair in the privities, redness of the face and dryness of lips, often pains of the head, and abundance of cholerick humors in the body. It *ariseth* either *from the birth*, from whence are viragos, and barrenness: *or after the birth* from external causes, amongst which are the use of hot things, too much venery, medicines which do move the heat and blood to the womb. *'Tis cured*, 1. *By the contrary diet.* 2. *By cooling medicines*, both internal and external, which are applyed to the loins and back, but they must be moderate, least the heat necessary for conception

ception be weakned, the cold ſubſtance of the womb becauſe it is membranous, be violated; the veſſels which ought to be open for flux of the courſes, be condenſed; and the nerves which are in the loins and back, be hurt. 3. *By emptiers*, viz. Rhubarb, ſyrup of roſes ſolutive, manna &c. *The flowers of Vitriol of Venus & Mars*, from three grains to ſix grains; given in ſome ſyrup is an appropriate purger for the womb.

Another is *cold*, more frequent than the hot, which *is known* from a leſs deſire to venery, and the little pleaſure in it, by the ſtopping, mucoſity, flegmatickneſs of the courſes, and their inordinate flux by reaſon of the plenty of the like humors collected in the womb; from whence is obſtruction; by the plenty of wind in the womb, by the crudity and watriſhneſs of the ſeed, from whence it flows without any pleaſure; by the pale color of the face, and other things oppoſite to the former. *It ariſeth* alſo from cauſes contrary to them, *'Tis cured*, 1. *By a contrary dyet*, 2. *By hot medicines* applyed to the womb, amongſt which do excel *inwardly*, *the Roots* of Birthwort, avens, angelica, eringoes; *the Leaves* of Mercury, balme, dittander of Candy, pennyroyal, Sage, Roſemary, mugwort. *The Flowers* of wal Flower, Marigold, Sage, Roſemary, burrage. *Spices*, Nutmeggs, Cubebs, Saffron, Cinnamon. *Of Compouuds*, Oyl of Mace, Amber, Myrrh, Cinnamon, *Fecula* bryone, *Aqua vitæ* Mulierum. *The extract* of Zedoary. *Outwardly*; the ſame things reduced into their formes.

Another is *moiſt*, which for the moſt part is joined with a cold. It is *known* by the plenty, thinneſs and watriſhneſs of the courſes, the moiſture of the privities by reaſon of the humidity of the excrements, and the paſſion of the Flux of the womb, even when the ſeed is voided, no delight in venery, and an aptneſs to miſcarry when the young one grows bigg. It *ariſeth* from the ſame cauſes as yet which is cold, and happens to them cheifly who lead an idle and ſedentary life. *'Tis cured* as the former, yet obſerve, that the fume of *the ſhaving of* Ivory and Sage boyled in wine and water conveighed through a pipe before ſupper, is commended. *Sulphurous baths* beare the palme away in outward things; we muſt have a care of aſtringent means, leaſt they detain the excrementitious humors.

Another is *dry*, which *is known* by the ſcarceneſs of the ſeed and courſes, ſlowneſs to venery, dryneſs of the mouth of the womb, the color of the lower lip a blackiſh red, with continual clefts; It *ariſeth* ſomtimes *from the very birth*, whence the patient hath a dry temper, and ſlender conſtitution of body. Somtimes *by reaſon of age*, whence they ceaſe to breed. Somtimes from *diſeaſes themſelves*, viz. an inflamation &c. ſomtimes from *defect of blood* which ought to moiſten it, *either* becauſe 'tis not emptyed by it, by reaſon of the ſtraitneſs and obſtruction of the veins, *or* becauſe being emptyed through the neck, it comes not to the bottom. *'Tis cured*, 1. *By a contrary dyet*, in which too much labor, watchings, faſting, ſadneſs are very much to be eſchewed. 2. *By the uſe of moiſtners*; amongſt which do excel, burrage, bugloſs, mercury, Marſh-mallows, violets; amongſt externals, baths of ſweet water, and anointings with oyl of ſweet almonds, white lillies, hens greaſe, the marrow of calves leggs &c. *The cure is difficult* if the dryneſs be of long continuance and hectical.

II. One is *ſimple*, to which belongs what hath been ſaid before.

Another *compound*, moſt commonly cold and moiſt, which *is known* by the former things compared amongſt themſelves. It *ariſeth* from flegmatick humors, whether derived from the whol, or produced by the whol. It *is cured*. 1. *By preparation* of the matter by hot hyſterical means. 2. *By emptying*, and that *univerſal* of the whol body by things that purge flegme. *By particular* of the womb it ſelf; of which we muſt have the greateſt care, if nothing proceed neither from the whol, nor the parts. And here peſſaries do much; alſo ſulphurous and drying *baths by ſweaters* which are here very much commended: viz. *with the decoction of Guajacum, china, ſarſaparilla; lentisk* wood &c. 3. *By a contrary dyet.*

Article, 2. *Of the ſtraitneſs of the veſſels of the womb.*

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part of the head extending it selfe to the roots of the eyes, if the head. A smal feaver which in process of time growes flowe, with often horrors, &c.

The CAUSES are al external and internal things, which by their acrimony can dissolve the continuity in that part, of which in the differences.

The CURE is *difficult* because it is in a place of exquisite sence, moist, and which hath a consent with many parts. *'Tis Ordered* the same manner was spoke in general in the first book. To inhibit the paine, *Steeled milk* cast in doth good. For drying, *baths.*

The *Differences* are various.

I. Some are from *external causes*, as medicines, hard labor, violent copulation. And others from *internal*, as are the secundine corrupted, the flux of blood retained, the flux of the womb, a virulent gonorrhæa, the french pox, Inflamation. Humors flowing thither, either from the whole, or a part, or generated there; al which must be attended in the cure.

II. Some are *superficial*, from which little matter flows, and medicins may be layed upon them. Others *profound*, which are in a contrary way, and the medicines ought to be injected.

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'Tis divided twofold.

I. One is *from external cauſes*, as medicines and aſtringent baths, which is known by the relation of the ſick. *'Tis eaſily cured*, and we muſt

muſt act with moiſtners and mollefyers.

Another *from internal*, of which in the following difference.

II. One is from a *Skarre, fleſh, or membrane growing on the orifices of the veſſels; or from a growing together of the mouths of the veins after a violent drawing forth of the ſecundine*, which is almoſt incurable, yet ſome tryal may be made with things mollefying.

Another *from obſtruction*, which thick, viſcous, and plenty of humors do cauſe, *whether* they flow thither from the reſt of the body, the heat not being able to attenuate them; *or* be heaped up in the womb it ſelf by reaſon of the weakneſs of heat in that. *It is known* by this, that there are preſent the ſigns of a cold diſtemper, a moiſture like ſnivel ſomtimes flows forth from the womb. *It is cured* as other obſtructions. Revulſion hath its place, if the matter flow thither. Amongſt openers of obſtructions are commended ſharp and bitter medicines, that move the courſes, *ſteeled wine*, baths connected with mollefyers and openers.

Another *from compreſſion*, which is cauſed either by *a tumor* and ſcirrus, conſiſting in the womb or without it, and *then* the ſigns of a tumor are preſent. The evil is almoſt incurable, *or* by the too much fatt of the neighboring parts; and *then* that is wholy manifeſt to the ſence, we muſt act with things that do extenuate.

Article, 3. *Of an inflation of the Womb.*

An inflation of the womb is a diſtenſion of the ſame by wind produced out of a cold, flegmatick and flatulent matter, by default of a weak heat.

'T is called alſo *a windy Mola*, by reaſon of the falſe hopes of a conception.

The ſigns are a diſtenſion of the womb conſiſting in the region of the belly, which is ſomtimes increaſed, ſomtimes diminiſht; ſomtimes 'tis extended to the ſides, ſomtimes to the navil, loins and midriffe. *It is diſtinguiſht* from *a dropſy* by its leſſer bulk, want of thirſt, by the increaſing and decreaſing of the tumor, by a leſs waſting of the upper parts. From *a dropſy of the womb* by the foregoing of cauſes generating wind, by a noiſe, leſs heavineſs, greater diſtenſion, by feeling an extenſive and pricking pain in the neighboring parts. From *an inflamation of the guts*, becauſe here neither are pains, nor coſtivneſs of body; becauſe the courſes are ſtopt, the feet and hollow of the eyes do ſwel, and color of the body is changed becauſe the woman pants, is greived, and when ſhe wakes out of her ſleep, breaths with her neck upright. From *a mola*, by the want of heavineſs and hardneſs, in the belly with a weight, moving it ſelf from ſide to ſide, when they move. From *a conception* by the ſound, and increaſe and decreaſe of the tumor, by wanting of motion like to the moving of the infant, for if the belly be preſt ſtrongly, the wind being driven to the neighboring parts, a certaine beating motion is felt in the whol belly.

The cauſe is expreſt in the definition, the matter it ſelf is *either* generated in the womb it ſelf. Either by reaſon of the ſuppreſſion of the courſes; or by interception of the purgation after a delivery; *or* proceeds from elſewhere, either by the veins, or by the ſeed veſſels. *But the weakneſs of heat* ariſeth for the moſt part from the external aire ſtopping by its coldneſs thoſe impurities in women lying in, which ſeek a paſſage forth; from hard labor, abortion, ſtoppage of the courſes, &c.

The cure if you conſider the method, differs not from the cure of other inflamations, ſo we have reſpect to the part. *Obſerve* that amongſt purgers, *Species hieræ and diaphenicon with caſtor*, are commended. For ſuffumigation, *Nutmeg*, of which *Hartman* in his chymiatry; for plaiſters, *the plaiſter of bay berries* with treacle; for drinks, *nutmeg* bruiſed, boyled with the roots of feverfew and drank with ſix ounces of wine, two drams of Sugar.

The Differences are taken from the part it ſelf.

One is *when the wind is in the cavity*, and then the mouth of the womb is ſo cloſed up, that none of it can get forth, when either the woman is moved or her belly perſt with the hand, a ſound and noiſe is perceived. But *that it may be conteined in the cavity* is certain, both becauſe the womb may be diſtended though it be thick, as in conception, and be retained there as in a mola; and becauſe the altering and retentive faculties being never idle, do change the diſeaſed ſeed into wind.

Another, *when 'tis in the coats of the ſame*, and *then* the mouth of the womb may be open, by reaſon that the winde is concluded in a narrow place, the ſound goes forth and the pains are greater and extended further: the evil is more difficult to cure, than that in the cavity.

Article.

Article, IV. *Of an inflamation of the womb.*

An inflamation of the womb is a tumor of the ſame from the putrefaction of blood fallen into its ſubſtance, troubleſom with many ſymptomes, and ſomtimes turning to a ſcirrhus, ſomtimes to an impoſtumation.

The ſigns, are various, the tumor it ſelf appears in the region of the womb, with a heat and pain, a ſhutting up of the womb, drawing of it towards the inward parts: but the whol neck of it appeares ruddy; little veins ſwelling every where with blood like to a ſpiders webb. There is a difficulty of breathing, which ſhew a pleureſy, becauſe the outward coat of the womb being extended which ariſeth from the peritoneum and is faſtened to it, thoſe parts alſo to which it coheres, are diſtended. The excrements of the belly and bladder, by reaſon of the heat and dryneſs of the belly, and compreſſion of the paſſages, are detained. The bulk of the belly ſomtimes appeares empty, and the belly is filled with water, and the navil ſtrutts forth, and the mouth is ſlender, and of a ſuddain a few and evil courſes follow. A continual and burning Feaver afflicts, by reaſon of the conſent of the womb with the heart by arteries and great veſſels, ſomtimes a lypirias by the motion of the humors towards the inward parts. There is a pain of the breaſts with an inflation of them by reaſon of the conſent of the groins, the hipps, the midrife, the cannel bones, the forepart of the head which is extended to the roots of the eyes; and it ariſeth from vapors of blood putrefying, carried up to the head by the arteries, which run through the neck from both parts of that called the infundibulum into the fore part of the head.

The cauſe is blood, which ſomtimes is pure, ſomtimes mixt with choler, ſomtimes dyed with black choler. *It ſlides thither* or ſlides forth for common cauſes, viz. the detaining of it in the time of the courſes, or after a delivery by the occurſion of the cold air. *'Tis attracted* by heat or pain which is cauſed, *either* by abortion, hard labor, violent drawing forth of the ſecundine, long walking when the courſes are at hand, *or* by a troubleſom carrying, if the young one be either great, or ill placed.

The cure is difficult, eſpecially if the whol womb be poſſeſt or ſuppurated; for a ſordid ulcer ariſing from thence, doth at length kil the patient with a ſlow Feaver. *None at al*, if there be an eryſipelas, becauſe the young one it ſelf dies by reaſon of the exceeding heat, whence follows abortion which kils the mother. If it turne to a deadly gangreen. *'Tis cured* as in other inflamations, where note that for revulſion we muſt not open a veine in the leggs, when as theſe veins draw the blood to the womb, but in the arme, when as the blood flows from the liver, and the veins adjacent to it. For derivation, a veine in the ham may be opened, unleſs the patient be great with child, leaſt abortion be cauſed. Topicks ought to be applyed cooling and moiſtning without any aſtriction. 'Tis thought that the *decoction of mother of time prepared with ſteeled water*, and outwardly applyed with ſponges, doth ſtop it by a certain propriety.

The *Differences* are taken from the part it ſelf.

I. One is *of the whol womb*, in which the ſymptomes afore mentiond do evidently afflict, and few indeed do ſcape. Another is *of the other ſide*, in which the heat paſſes to the hipp, by reaſon of the ligaments of the womb which are carried thither, the legg of the ſame ſide is hardly moved, the groins of that place are inflamed.

II. One is *of the hinder part*, in which the belly is bound, the paine doth more afflict the loins and backbone. Another *of the fore part*, in which becauſe it coheres to the bladder, the urine is ſtoppt or made with difficulty, the pain goes more towards the pubes. Another of *its bottom*, in which the lower part of the belly is ſo pained, that it cannot endure to be touched, and the pain is extended more to the navel.

III. There is one *which turns to a ſcirrhus*, in which al things become milder, a weight and heavineſs is felt in the neighboring parts, the evil is of long continuance, and is often terminated in a dropſy of the womb. Another to *an impoſthumation*, in which al things are increaſed, til ſuppuration is made: horrors without order invade them for the moſt part about the evening; the impoſtumation being broke (but it breaks either into the cavity of the womb, which is ſafer, or 'tis poured Forth into other parts) ſomtimes the urine, ſomtimes the belly is ſtopt, with a ſwelling of the pubes, and the ſenſe of ſomthing waving.

Article. 5. *Of a ſcirrhus of the womb.*

A ſcirrhus of the womb is a hard ſwelling of the

the same, and resisting without pain, produced from a thick, earthy, and fæculent humor.

The SIGNS are besides other general ones, to wit the Courses at the beginning are suppresst, or flow too little; the evil increasing, there is a great flux of blood by intervals, either the Mouths of the Veins being opened more than is fit, or the Womb not being able either to receive or retain the accustomary quantity of blood. *'Tis distinguisht* from a Mola, because in this if the Courses flow, they flow disorderly, and the Breasts also swel with Milk, which in a Scirrus are extenuated, &c.

The CAUSE is an earthy and feculent humor, to wit a thick blood, somtimes flegmatick, somtimes Melancholical, which happens in the declining Age, and troubles them which have been sick of a Pica, Malacia, or bulimus; oftentimes from an inflamation ill cured, by reason of the too much use either of coolers, or discussives.

The CURE is *difficult* both because things dryed a long time cannot be mollefied, and because the Native heat is exhausted in parts affected with a Scirrus, and because while the Humor is mollefied, it may easily turn to a Cancer by taking putrefaction. *The proceedings* of the cure differs not from others.

'Tis *divided* in respect to the part affected.

One is *in the substance it self*, in which the Womb lies upon the Hip and Back, and there Causeth a pain. Another *in the Neck*, which is discovered by the touch of the finger, 'tis easier cured than the former. If it be in the upper part of the Neck; the Woman is hurt in Copulation, and the bladder is prest by the Tumor, if it be in the lower part, the right Gut is offended.

Article, VI. *Of a Dropsie of the Womb.*

A Dropsie of the Womb is an impotency of the same from water collected in it, either by its own fault, or the fault of other Parts.

The SIGNS are a loose swelling of the lower part of the belly, extended according to the figure of the Womb a scarceness and evilness of the Courses, because they are like to the washings of flesh, their failing before the time, the thinness and moisture of the mouth of the Womb, softness of the Breasts, and want of milk, a rigour and oftentimes a Faver. *'Tis distinguisht* from *an Inflamation* by want of a Feaver, and by its softness, by other Symptomes, of which formerly. From an inflation, by defect of distension and noise. From a *Mola*, because in this a greater weight is felt in the bottom of the belly, the breasts at the time of the birth approaching do swel. From a *Conception* because in a Dropsie the Tumor of the Womb is extended according to the largeness of the womb and belly, inconception 'tis pointed. In women with Child the Courses do not flow, here a certain bloody Humor, evil flows forth observing no order, and is quickly stopt. From *a Dropsie of the Belly*, by the Patients color in the Face, unless the Liver be affected, by want of thirst, by the ascent of the Tumor from the lower part to the upper.

The CAUSE is the water there, either *by the fault* of the Spleen or Liver, of which consult with their proper Chapters; or *by the weakness* of the Womb it self, by reason of which, it doth neither concoct wel, nor wel expel its Excrements, the which is, *either* from often abortions, and hard labour. *Or* from too great a Flux of the Courses, dissipating its heat. *Or* from the suppression of them choaking up the same heat.

The CURE requires the bringing forth of the water, and strengthing of the Womb, having respect to the Causes, *Hartman*, commends *Antimonial Pills*.

The *Difference* is taken from the Part.

One is *when the water is collected in its Cavity*, in which the Orifice of the womb if it be touched, is found shut up, the Tumor is great, and a certain waving is perceived if it follow conception, that yellowish and stinking water within two months for the most part kils the Young one, which is then cast forth with it. Another is *when the water resides in its substance and little bladders growing to it*, in which its Orifice being handled it appears contracted: Greater pains arise, the Cure becomes more difficult.

Article, VII. *Of the falling down of the womb.*

The falling down of the womb is a hanging forth of the same out of the belly, proceeding

ceeding from a solution of the unity of its ligaments.

The general *Signs* are, a pain of the Loyns, of the lower part of the belly, of the Privities, of the *Os Sacrum*, to which the Womb is fastened, and this at the beginning. In process of time the pain is mitigated it being accustomary, and there is a troublesome sence only of a weight, and a hindrance in walking. *The special Signs*, vary according to the nature of *a greater* or *lesser* falling down. *In that* the Womb descends to the middle of the Hips and Knees, presents a Tumor like a Goose Egg, in whose lower part there appears a hollowness, *in this* a Tumor is perceived as it were of a skin retcht, and as it were a weight of a great Egg about the Privities.

The CAUSE is whatsoever can dissolve the unity of the ligaments; see in that which follows.

The CURE is *difficult*, if it be great, if it afflict those of ful Age, if a Feaver, convulsion, or other Symptomes happen. Nay if it be, 'tis deadly in those that lie in, and somtimes by the alteration of the ambient Air, or violent repelling of it, 'tis corrupted, and taken with a gangreen. It *consists*. 1. *In replacing of the Womb it self*, where *note*, first of al the Inflamation must be stopt, if there be any. If a Tumor imprest by the cold Air on the Womb do urge the part must first be fomented with a Decoction of Mallows, Marshmallows, chamemel flowers, Bay berries, &c. If there be wind or Excrements in the Guts we must premise a Clyster. Before it is replaced, it must be fomented, sprinkled, anoynted with things Agglutinative and astringent. *A suffumigation of the Skin of a Salt Eele*, dryed in the Smoak and poudered is commended. Seek for an astringent bath out of *Guilielmus Rondeletius*, his Cures. The manner of putting it up, see in Authors. 2. *In retaining of it*, and *then* the Woman must be placed in her bed bending downward, with her Thighes extended, so that one lie upon the other, the belly must be kept neither slow to stool, least in casting forth the ordure the Womb be forced down, nor loose, least the Membranes binding the Womb be relaxt. Agglutinative and astringent Medicines must be applyed. To this end serve, Pessaries, Fomentations, injections by a Syringe, and other things. But have a care you stop not the Courses with them.

The *Differences* are taken from the Causes.

1. One is *by reason of the Laxness of the ligaments*, of which it hath four; which *is known* by this, that 'tis generated by degrees, and afflicts with less pain. *It ariseth* either from hard labor, burthensome carrying of the young, or from the afflux of a Flegmatick matter. *'Tis Cured* by emptying of the Humors, by the use of things astringent & strengthning, as are *the Decoction of Oake moss, Harts horn, Bay Leaves*, an astringent Plaister. *A Loadstone* prepared and applyed.

Another is from *the breaking of the Ligaments*, which *is known* by this, that the evil ariseth of a suddain, afflicts with greater pain, & somtimes is followed with a flux of blood. *It ariseth* either from the Heavy carriage of the young one, or from hard labor, or from abortion, or from a violent drawing forth of the Secundine.

Another from *the Corrosion of the ligaments*, and then there are signs of an Ulcer, some matter flows out.

Article, VIII. *Of the ascent of the womb, its wounds and Ulcers.*

That the womb may ascend out of its place towards the upper Parts as high as the stomach, is the Opinion of some, but false. For. 1. 'Tis so tied with four ligaments, that it cannot be moved upwards at al. 2. Although it have a natural motion by fibres, yet because 'tis tied to the right Gut and Privities, if it had an Animal motion, those parts also must necessarily be distended. 3. Although it swel with wind as was said formerly, yet it follows not from thence, that 'tis moved upwards. But that Women somtimes do feel a body and a Globe as it were running about the Region of the Navel, we must say, 'tis rather the Testicles and that blind Vessel, than the Womb it self. The Cause of this shal be explained in the suffocation of the Womb.

II. Concerning *wounds of the womb*, note, 1. That the Womb is hardly wounded, because 'tis on every side guarded with bones. 2. If it be wounded, 'tis known by the Situation, pain and matter that flows forth. 3. That it may be cured, as appears by the Cæsarean birth, but 'tis dangerous by reason of the consent of the part with other members. 4. Or it happens on the bottome of the womb, and then that pain is less, and easier Cured, or on the Neck, and then the pain is greater and har-

der to be Cured, because that is more membranous and continually abounds with moisture.

III. Concerning *Ulcers* we meet with nothing of worth, which hath not been touched on formerly, unless perhaps we may add, that it doth sometimes so Putrefie, that it must be cut out, and fals away the woman surviving. For consolidation do serve, *the Balsam of sulphur, and the Plaister of the same,* (concerning which see *Hartmans* Chymiatry in the Chapter of a Consumption.)

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, XII. *Of the Symptomes of the Womb.*

Chap. 1. *Of the Common Symptomes.*

Article, I. *Of the weakness of the womb.*

THe Symptomes of the Womb, are either *common to Women in al states,* or are, either *more familiar to those that live out of wedlock*: or *proper to the married.*

Those common are, *a weakness of the womb, Pain, a stoppage of the Courses, a dropping of them, too great a flux, a difficulty of them, a discolouring, an inordinate flux, a womans flux, a gonorrhea.*

A weakness of the womb is a sluggishness or defect of the same, in performing its actions, induced by the fault of a distemper, occult qualities, and the native heat.

The SIGNS are, a languishing desire of venery, an inordinate flux of the Courses, when they are at hand, a pain in the loyns and pecten, little or no pleasure in copulation, often abortions, a breaking forth of wind from the womb. For the actions of the womb are, a desire of Venery, a voiding of menstruous blood at due times, the ejection of seed in the act of Venery, and the retaining of that received from the man; a keeping of the young one conceived to the due time, and the exclusion of it when 'tis perfect into the world.

The Nature of *the Causes* shal be explained in the Differences.

The Cure must be directed against the Causes (of which there.)

The *Differences* are taken from the Causes.

One is from *the distemper of the womb,* which if it be *Cold* the womb cannot perfect a mean quantity of nourishment, therefore it heaps not up many Excrements. If *moist,* neither the blood, nor seed, nor young one are rightly conteined. See the Cure above.

Another is from *occult qualities,* which the womb hath is apparent from hence, because it hath a singular Sympathy and antipathy with divers things; desires mans seed, is delighted with sweet things, &c. And then the affect riseth from no evident Cause. There is found no excess of moisture or coldness. *In the cure* Medicines must be applyed that are proper by their whol substance.

Another is from *the innate heat, either choaked, or dissipated,* and then the affect is dangerous, because the heat is difficultly renewed. *In the Cure* we must act with restauratives, as are, Cinnamon, Nut-Megs, the Species Diaxyloaloes, Aromaticum Rosatum, &c.

Article, II. *Of the Pain of the womb.*

A Pain of the womb is a sad sense of the same proceeding from a solution of continuity induced by its Causes.

There is no need *of Signs* when the Woman her self makes known the pain. It affects both Women that are free, and great with Child, and past labour. It torments as pains of the collick do in the lower belly, whenas the ligaments of the Womb are carried to the Hips and Loynes, so far also it extends it self.

The *Cause* is whatsoever can dissolve continuity.

The *Cure* respects, 1. The mitigation of pain by anodynes. 2. The removal of the Cause, of which in the Differences.

The *Differences* are taken from the Causes.

1. One is *from corrosion,* which cheifly happens in Ulcers, the Womans flux, vitious Courses

Courses, &c. It offends most of al the Neck of the Womb. *The Cure* must be directed against those affects.

Another from *distention*, which is caused. 1. *By a clot of Blood*, sticking in the Cavity of the Womb, and *then* a plentiful flux of Blood preceded from the womb, the pain is fixt, and is perceived most of al about the Orifice of the womb, when as Nature by the continual endeavoring to expel it doth draw the right Gut and bladder into consent, 'tis joyned with a tenasmus and often pissing. *In the Cure* we must respect, *the dissolving of the clot*, for which Treacle with Wine is commended, and *the emptying of it*, and if hath stayed long there *the Maligity of it*. 2. *By Menstruous blood*, when either the Vessels are not wide enough, or that is too thick; which also may happen from cold drink, especially if the woman were hot after exercise, and then the Causes went before which occasioned it, there are signs of the Courses suppresst or not flowing rightly. *The cure* must be directed to the same. 3. *By vitious Humors*, sticking in the Cavity or Vessels of the womb; and then we must act with emptyers and preparatives. 4. *By wind* which ariseth from the boyling of the vitious Humors. Which sometimes copulation causeth. And then emptying must be ordered, we must act with things that discuss wind, of which in the Chollick. 5. *by an inflamation of the womb*, of which formerly. 6. *By seed retained and corrupted*, and then we must look to the suffocation of the womb.

Article, III. *Of the suppression of the Courses.*

A suppression of the Courses is a retention of the menstruous blood, by reason of the streitnes of the passages, or the fault of the blood.

The SIGNS are afforded from the relation of the woman her self, but if they wil not confess, *In Virgins 'tis known* by this, that the blood stopt doth wander up and down in the Veins, and cause obstructions, changes the colour of the body, induceth a Feaver, &c. *In women* that 'tis carried to the womb and infers Diseases of the womb. *'Tis distinguisht from the retention in childing*, because they with Child are little changed in the affections of their mind, they retaine the Native color of their body, they find the Symptomes dayly more mild, they perceive the motion and situation of the infant the third month. They have the mouth of their womb shut up and hard.

The CAUSES are a streightnes of the veins, and the fault of the blood, of which in the differences shal be treated more at large.

The *Cure must be hastened* because that suppression doth produce many diseases, as a feaver, a leucophlegmatick, a dropsie, vomiting of blood, &c. *'Tis difficult* if it be of long continuance, if it hath exceeded the sixth month for the most part 'tis thought incurable, especially if it happen from a perversion of the neck of the womb, for then the woman swoundeth, and vomits flegme, the parts of the belly and pecten are pained, the back bone, and a feaver happens. The excrements of the belly and bladder are suppresst, a wearines possesses the whole body by reason of the diffusion of the blood retained through the whole, it most of al detains the thighs and hips by reason of the consent of the veins of these parts with the veins of the womb. 'Tis of good success, if it be emptied through other places, so it be not through the bladder, because the blood doth clot most of al in that. *It respects.* 1. *Bleeding*, for the blood which stops every month, is heaped up in the body, and sticking in the veins it must be recalled to the wombe. Concerning this *note* a vein must be opened in the ancle, because, so both the quantity of the blood is diminisht, and its motion to the wombe is procured. If it must be repeated, one day blood must be taken from one leg, the next from the other. That which is ordered from emptying, ought to be opened at the beginning, that which is opened in the ham or ancle, after purging must be done three, four, or five dayes before the time of the accustomary evacuation. Cupping-glasses which are deputies of bleeding, must first of al be applied to the remoter places, viz. the thighs, then to the neerer, to wit the hips. Hither belong ligatures, fractions, the time of the courses being at hand, after emptying of the whole body. 2. *The preparation of the matter*, and for this serves in flegmatick bodies, *the decoction of guaiacum with ditander of caudy* without provoking of sweat. 3. *Emptying*, which must be ordered at times, that the matter may be emptyed by little and little. Amongst *evacuating medicines* are commended, *agarick, Galens hiera with castor, aloes with the juice of savin.* Pils *made of aloe socotorina three drams; the best myrrh one scruple; extract of callamus aromaticus, carduus benedictus saffron, of each three grains; of th rootes of gentian, dittander, each five grain with syrup of bay berries*, and given *one scr.*

ple weight in the evening before supper. 4. *Opening obstructions* by those things that move the courses, the cheife are *inwardly* given, the decoction *of rosemary with the flower of wal flower* in wine. *Zacutus his chalybeat wine* l. 2. c. 10. his *water* in the same place; *Pennyroial water twice distiled with cinnamon water*. The extract *of Zedoary, angelica, castor*. The fæcula *of bryony, the earth which is found in iron mines given in the same quantity, order, and forme, as steel is*. The spirit *of tartar*, *Hartmans* lozinges *of Crocus martis*. Outwardly, *Zacutus* his ointment *of steel*. l. 3. histor. p. 52. the fat *of an eele, of a snake* with the distilled oyl of savin. A suffumigation *of the refuse of Regulus antimonii*, of which in *Hartman*. 5. *A discussion of the remainders* by sweaters, viz. with a drauft either of *Zercetans milium solis* in his pharmaco. restaura. Or with a *chalybeate* decoction *with spirit of tartar*, the juice of elder, &c.

The *Differences* are fetcht from the Causes.

I. One is *from the obstruction of the veins of the womb*, which *is caused* by cold and thick blood, viscous and thick humors mixt with the blood; proceeding *either* from a hot distemper of the womb, which dissipates, the subtil and sharp humors, leaves the thick and earthy parts; *or* from a cold constitution of the liver and spleen; or from the like nourishments, especially if in the time of the menstruous flux they be dissipated, when the force of the blood is greater: and then the time of the purgation being at hand, pains are felt in the loins and neighboring parts, if any thing flows forth, 'tis mucous, somwhat white, and somwhat black: there is a dulness in the whole body, with a white colour, a rare pulse and crude urines.

Let the *Cure* be fetcht from what hath been said before.

Another *from compression*, which is either from *external causes*, as the northern air, staying in cold water, and then the relation of the patient wil unfould it. The blood must be drawne to the lower parts by frictions, bandages, baths. Or from *internal* causes, to wit the fat of the womb, or tumors of the neighboring parts, and then, the tumor must be taken away with convenient remedies. Things that move the courses have no place here.

Another is *from a constipation* whiles the substance of the womb it self is hard, which is either *from the first birth*, and then 'tis not easily taken away; or *after the birth*, from a cold and dry distemper; of which formerly.

Another from a *growing together*, which is caused. 1. *By a shar* left after an ulcer. 2. *By flesh or a membraim* growing over the vessels of the womb. 3. *By often abortion*, after which those veins to which the secundine adheres, doe so grow together, that afterwards they cannot be opened.

II. One is from *a defect of blood*, which either *is not generated*, either by reason of external causes, viz. hunger, too much evacuation, issues, &c. or of internal, as a cold constitution of the principal parts, old age, feavers. Or *'tis converted to other uses*, as before ripe age into the augmentation of the body, in women with childe to the nourishment of the young one, in those that give suck into milk, in fat folkes into fat. Or *'tis wasted*, either by reason of external causes, to wit, exercise, too much labour, frights, sadness, baths, hot houses, which by provoking plentious sweats, do both carry the blood to the circumference of the body, and waste its serous part, which gives fluxibility to it; or internal, as are hot and dry diseases, too great evacuations made by other parts, &c.

Another from *the dryness of the blood*, which is caused by adustion, when in the winter time women put light coales under their lower belly to drive away the cold, and then we must act with coolers and moistners.

Article. IV. *Of a dropping, and difficulty of the courses.*

The dropping of the courses is a breaking forth of the menstruous blood either for many dayes, or continually, yet made by drops.

There is no need of *Signs* when the fault is made known by the relation of the woman.

The *Cause* consists either in things external, or in the blood, or in the vessels.

The *Cure* follows the Nature of the Causes.

The *Difference* is taken from the causes.

One is from *external causes*; exercise, hot medicines, and other things that diffuse the blood and open the passages; and then there is a greater pouring forth of blood.

Another is from the *faculency of the blood*, the waies not beng open enough, and then it happens with pain, in the cure opening a vein

in

in the arm takes place. Purging by little and little ought to be urged.

Another is from *the weakneß of the retentive faculty*, there comming together a plenty of blood, a thinneſs and ſerosity; and then no pain urges. We muſt act with medicines that ſtrengthen the womb with aſtriction and dryneſs.

II. A *difficulty of the courſes is a flowing of them with pain and trouble, and greivous ſymptomes, by the default of the veins or blood.*

The ſigns are taken from the relation of the patient; thoſe pains are, of the head, ſtomach, loyns and lower belly. The flux is either altogether, or only by the way of dropping, and ſomtimes when the courſes are at hand, ſomtimes when they flow, the ſymptoms happen, and they do more afflict virgins and the barren, becauſe the veins of their wombes are leſs open, than thoſe that have brought forth, becauſe their veins after breeding are dilated.

We ſhal treat *of the cauſes* in the differences.

The cure reſpects, 1. *The Symptoms*, which muſt be mitigated, 2. *The cauſes*, which muſt be taken away.

The difference is taken from the cauſes.

One is from *the ſtraitneſs of the veins* of which we have ſayd enough in the ſuppreſſion of the courſes.

Another from *the faults of the blood*, that is. 1. *From the thickneß and feculency of it*, and *then* the blood whiles it is emptyed, grows into clots, the pains grow feircer a long time before the evacuation by reaſon of the endeavors of the expulſive Faculty. *The cure* (premiſing univerſals) is perfected by things attenuating, and that have power to diffuſe it. 2. *From the acrimony, proceeding from the mixture of ſharp humors*, and *then* the genital parts do itch, the nature of the blood voided and manner of the pain diſcovers the diſeaſe. We muſt act with things that qualify the acrimony, as are the Four greater ſeeds, violets, the flowers of water lillies. 3. *From the flatulency*, and *then* the pain returns by intervalls, and of a ſuddain grows ſharper, wanders up and down, wind being voided it ceaſes. It *is cured* by emptying of the matter, and diſcuſſing of wind.

Article. 5. *Of the diſcoloring of the courſes.*

The diſcolouring of the courſes is a declining of them, whenas they ought to be ruddy, to a palneſs, whiteneſs, greeneß, yellowneß, or lividneß, by default of blood.

The ſigns are afforded from beholding the blood it ſelf; there is added a ſtinkingneſs, an inordinate evacuation, and oftentimes erratick Feavers, accute; horror, loathing of meat, pains of the ſtomach &c. concerning which ſee *Hippocrates*.

The cauſe is layd upon the falt of the blood, concerning which, as alſo of its cauſes, ſee in the differences.

The cure attends the cauſes, therefore according to the nature of them it varies.

'Tis divided twofold.

I. One is *when the blood contracts a fault*, either by reaſon of a diſtemper of the whol body, or of ſome principal part, reſpect to which muſt be had in the cure.

Another, *when the blood is in fault*, either becauſe 'tis ſuppreſt and retaind, and *then* a ſtoppage of the courſes went before, pains are felt in the breaſt, and ſtrong pulſations; if the habit be better, the courſes break forth, and the blood flows forth, and a ſtrong ſmelling matter, about the eight or ninth day. *Or* becauſe 'tis polluted by the womb abounding with excrements, and then there are ſigns of a polluted womb.

Another *when the blood is polluted by the mixture of excrementitious humors*, and *then* if you conſider the cure, we muſt prepare them, but ſo, that whenas thick humors do want attenuation, and things too much attenuating do melt the ſerous humors, and move them to the womb, we muſt abſteine from the ſtronger. and beware of vinegar; we muſt empty &c.

II. One is *when the courſes decline to a whiteneß*, which *ariſeth* either *from flegm*, of which howſoever it be there are ſigns of a weak ſtomach; or *from matter*, and *then either* ulcers are raiſed in the womb and barrenneſs follows, *or* the courſes flow forth for ſeven or eight days and the woman is freed; *or* the ſame break forth at the parts above the groin without a tumor and about the hypochondries they come forth and the woman ſeldom ſurvives. Or after ſomedaies a great tumor riſeth upon the groin, ruddy without a head, becauſe there the fleſh is filled up, and 'tis hardly opened.

Another is *when it declines to yellowneß or greenneß*, which proceeds from choler.

Another, *when to a lividneß*, which ariſeth from melancholy.

Article,

Article 6. *Of an inordinate flux of the courses.*

An inordinate flux of the courses includes two things, to wit, an anticipation of the courses before the due time, and their continuance beyond the accustomary time.

The anticipation of the courses is divided according to the nature of the causes.

One is from external causes, viz. a fal, a blow, and other things that open the veins. See the cure below.

Another from the *irritation of the expulsive faculty of the womb.* 1. *By the plenty of blood,* which *is known* by this, that the blood is sent from the whol body to the womb, 'tis fluid and natural; there are signs of a plentitude. 'Tis *cured,* by bleeding, if the plenty be great, by dyet and often exercise, if it be less. 2. *By the thinness and acrimony of the blood,* which is known by this, that the temper of the whol body is hot, a course of dyet generating such blood went before, the blood it self is dilute, discolored yellowish. 'Tis *cured* by emptyers, rhubarb especially; by qualifyers, of which formerly.

Another from *the weak retentive faculty of the womb,* which *is known* by this, that the vessels of the womb are loose, the habit of the body also is lax and moist. The cure forbids things too much astringent. Acid waters and baths that have the vertue of iron are commended.

II. *The continuance of the courses beyond the accustomary time is divided also according to the nature of the causes.*

One is which proceeds from *the disappointment of the expulsive faculty,* which is caused, I. *By the scarcity* of blood, which *is known* by this, that the woman finds no trouble by the protraction of her courses, & that too much excercise or slender dyet went before. 2. By the *thickness of the blood,* which *is known* by this, that there are signs of a cacochyme, the blood is whitish and viscous. *In the cure* we must purge before much blood be gathered together, attenuate when the menstruous purgation is over, *calamint and mercury* beare the palme; some days before the monthly purgation, we must open, scarification of the ankels takes place here.

Another which ariseth from *the weakness of the expulsive faculty,* which is induced, 1. *By a cold distemper of the womb,* of which formerly, 2. *By a stupidity of the same,* which *is known* by this, that there are present disease causing stupidity, or too great use of coolers went before, after the due time of purgation, though there be present abundance of blood, no heavines is perceived by the woman. In the cure we must have respect to the disease and its causes.

Article, 7. *Of too much flowing of the courses.*

The too much flowing of the courses is either a too plentiful or more continued purgation of them than is convenient, arising either from the fault of the blood, or of the womb, or of the veins.

There is not much need of *signs,* especially if there follow a want of appitite, crudety, an evil color of the face, a swelling of the feet and the rest of the body, an atrophy, cachexy &c.

The cause we have layd on the blood, the womb or the veins; but whence these are in fault, shal be explained in the differences.

The cure is *difficult* if it be of long continuance. None at al, if it happen to a woman growing old. *It requires,* 1. A *restraint of them* by revulsion, interception, thickning of the blood, stopping up the vessels by astringent means and other things. Yet it must be stopt by degrees, if there be a great plenty of blood, and it happen by way of crisis, the which falls out seldom. Here take place *Heurnius* his pouder, *of the seed of white henbane, white poppy, each one dram; of the bloodstone, red coral, each half a dram; campbure half a scruple given half a dram weight.* The pouder *of amber, sanguis draconis, the bloodstone, red corral, purslane seeds, each one dram; pomegranate flowers two scruples; easterne bole armenick two drams; given from one dram in three ounces of plantane water. Asses* milk *with steel. Ferdinandus* his aqua *mirabilis.* histor. 33. The trochisks *de carabe, the bones of a man strongly calcined. Zacutus his pills,* l. 9. *prax. histor. p.* 185. *His* plaister there. The plaister of saxonia made of the *sut of a chimney, volatil floure &c.* a pessary *made of beggs and asses dung with the juice of plantane and the mucilage of quinse seeds.* Specificks are, *inwardly, Forestus* his pouder *of a turtil,* l. 28. obs. 10. The salt *of the ashes of the same,* the thin skin of geese feet dryed and given from one dram, to two scrupels. *Outwardly,* a girdle of the leaves of bastard black hellebore bruised. Of which *Renealmus,* obser. 21.

The differences are divers, which do cheifly respect the causes. *The*

I. One is *from blood*, which, 1. either *is derived from the bottom of the womb*, in which the blood is blacker and for the moſt part clotted. Or from the neck, which is more ruddy and fluid. 2. 'Tis either *plentiful*, or *ſharp*, or *ſerous*. Of which in the following difference.

Another from the moiſtneſs of the womb, of which ſee formerly.

Another from *the fault of the Veins*, concerning which conſult with the third difference.

One is from *plenty of blood*, which is *known* by this, that either the veſſels are opened or broke, in women eſpecially, whoſe courſes have ſtopt a long while, and afterwards do breake forth more plentifully. There are ſigns of a plentitude, the blood which comes forth, doth eaſily concrete into clots. *In the Cure* we muſt reſpect. 1. *Bleeding*, which if it be ordered for evacuation, it concernes a vein in the arme, the liver veine cheifly. If the ſtrength be feeble, 'tis ordered in the ſalvatella of each hand, if it be for revulſion, it muſt be done at ſeveral times, becauſe being repeated it revells more powerfully. 2. *Cupping-glaſſes*, which for evacuation may be applied to any part, if you except the lower, as to the back, ſhoulders, and that with ſcarification; for revulſion they ought to be ſet to the breaſts without ſcarification, and upon a difficulty of breathing enſuing they muſt be removed. 3. *Ligatures, frictions of the armes, &c.*

Another from *ſharp blood*, which is *known* by this, that there is a corroſion of the veſſels joyned with it, there are ſigns of choler. The blood is detained and corrupted in the womb, it ſlides forth in greater quantity. *In the Cure* let purging be adminiſtred by ſyrup of roſes ſolutive and leaves of ſenny. See things that thicken it above mentioned.

Another from *ſerous and watery blood*, which is *known* by this, that either the liver is faulty by its weakneſs, or the kidnies by reaſon of their weakneſs do not attract the ſerum. The blood flowes forth in leſſe quantity and is not eaſily clotted: that which is flowed forth, if it be received on a linnin cloath, and dryed in the ſhade, diſcovers it ſelf by the colour. The *Cure* attends the diſeaſes themſelves.

II. One is from *an Anaſtomoſis*, in the cure of which obſerve, that hot things ought to be mixt with cold leaſt the veins be obſtructed, the ventilation of heat be prohibited, and a feaver induced; that peſſaries may be applied if the opening be in the veſſels of the neck, where oake leaves and *unguentum Commitiſſæ* are good; that baths muſt not be uſed unleſs they be ſomwhat cold, or whoſe aſtringent power overcomes their heat.

Another is from a *Diapediſis*, which happens very rare, it preſently requires aſtringent topicks.

Another from a *Breaking*, which happens either from a plenitude, or from cauſes that ſtir the blood, eſpecially from hard labor, and premiſing the opening of a vein if ther be need; 'tis cured by conglutinating medicines.

Another from a *corroſion*, which is *known* from hence, that little blood flowes, ſomtimes purulent, ſomtimes ſerous. *It driſeth* from a ſharp and corrupt blood, ſomtimes alſo from ſharp medicines, amongſt *Aſtringents* is commended *the root of dropwort, or 'its decoction.*

Article. VIII. *Of the Womans flux and gonorrhæa.*

The womans flux, which otherwiſe is expreſt by the name of the whites, is an inordinate voiding from the womb, of an excrementitious humor by its whole nature differing from blood, collected by the fault either of the whole, or of ſome part.

'Tis called the *womans*, becauſe it affects women, and truly virgins alſo, when as the cauſes take place in them, and there are examples of it. Yet more commonly thoſe of *riper age*, eſpecially if they be indewed with a moiſt and cold conſtitution, do lead a delicate and idle life, and feed upon cold and moiſt nouriſhments: *old women alſo*, and that unto death, by reaſon of the plenty of ffegm, and the weakneſs of the concocting faculty.

There is no need to enquire *the Signs*, the affect is made known by the relation of the patient her ſelf. *It differs from a gonorrhæa*, becauſe in that the matter of the ſeed flows forth, whiter, thicker, and at longer intervals, and 'tis voided in leſs quantity. From a nocturnal *polution*, becauſe this is joyned with a phanſie of a venereal buſineſs, and happens only in the ſleep. From the *diſcolored courſes*, becauſe they obſerve their periods, though not alwaies exactly; they do not happen to women with child, and thoſe troubled with the ſuppreſſion of the courſes, they ſhew a red colour. From *matter out of the ulcers of the womb*, becauſe then the ſigns of an ulcer ſtand forth, the matter it ſelf is thicker and whiter. If it be ſanious 'tis beſmeared with blood, and voided with pain.

We

We have laid *the Cauſe* upon an Excrementitious Humor, which Somtimes is raiſed by purging Medicines, Nature being ſtirred up by their uſe to attempt excretions, ſomtimes by Baths, Nature caſting off by this way thoſe Excrements which could not be driven forth by ſweat.

The cure muſt be haſtened, for it makes women Barren for the moſt Part, unleſs perhap it be emptyed through the Veſſels of the Neck of the womb, it caſts the ſame into an Atrophy, conſumption, Melancholy, Dropſie, Falling down of the womb, ſwounings and Convulſions. Hence though at the beginning 'tis ſcarce Cured, yet afterwards 'tis more difficult. For the whol body accuſtomes it ſelf to caſt off the Excrements through that way, and the womb being rendered weaker collects Excrements. It varies according to the nature of the Cauſes.

The *Differences* are taken from the part that ſends them, and the colour of the blood.

I. One is from *the whol*, which *is known* by this, that there are ſigns of a Cacochymy in the whol body, the flux is more plentiful. *In the Cure.* 1. *Bleeding* muſt be ſhunned, both becauſe the Humors ought not to be recalled into the Veins to pollute the blood, and becauſe the ſtrength is dejected by the long continuance of this affect, and the body waſted. 2. *Diſcuſſion* is very wel performed by Decoctions *of Guajacum, China, and lentisk wood, &c.* 3. *For drying, the Root of dropwort*, is very much commended. For binding, *the pouder of mans bones, the aſhes of Capons dung in rain water.* *Zacutus* his Plaiſter. l. 9. c. 11. Prax. Hiſtory, which ought to be applyed to the Kidneys. 4. Sleeping on the back muſt be avoided, leaſt by the heat of the Loyns, the humors be carried towards the womb. 5. Frictions of the upper parts are good for averſion.

Another is from *ſome part beſides the womb*, and *then* there are ſigns of the part affected, in the cure we muſt have regard unto it.

II. One is from *the womb*, which *is known* by this, that there are ſigns of the womb affected, the flux is not ſo plentiful. *It ariſeth* from the diſtemper of it, of which in the Cure we muſt have a regard. *Suffumigations of Frankincenſe, Labdanum, Maſtick, Saunders are wel* applyed; but from what Cauſe ſoever it ariſeth, *baths* do moſt good.

Concerning *a Gonorrhæa*, if any thing ought to be known, let it be ſought from thoſe things which are ſaid concerning a mans gonorrhæa.

Chap. 2. *Of the Symptomes more familiar to thoſe that live out of Wedlock.*

Article, I. *Of the Virgins Diſeaſe.*

THe Symptoms more familiar to thoſe that live unmarried are, *the Virgins diſeaſe, the ſuffocation of the womb, the madneſs of the womb, and the melancholy of women.*

The Virgins diſeaſe (otherwiſe the white, the Virgins, the Pale, the Lovers Feaver) is a change of the natural color in the Face into a greeniſh and pale, proceeding from the abundance of crude Humors.

'Tis called *the Virgins*, becauſe it appertains moſt of al to Virgins, and truly to the Fairer, endued with a white colour, thence the Tincture from crude Humors is the eaſier.

The Face it ſelf wil afford us *the Signs*, to which add other Symptomes, as the pain of the Head, ſomtimes madneſs, the Humors and Vapors being carried thither and mixt with Melancholy; a difficulty of breathing with a palpitation of the heart, if they ſtir, with a ſmal and frequent pulſe of the Arteries in the Neck, back, and Temples, by Reaſon of the lifting up of Vapors from the heating of the thick blood, inordinate and erratick Feavers by reaſon of the Putrefaction of the Humors, manifold affects of the Stomach, amongſt which loathing of meat, by reaſon of the unhappy diſtribution of the Chyle. A Pica from the abundance of evil humors in the coats of the ſtomach. Vomiting from the great plenty of crude Humors, both a diſtenſion of the Hypochondries, from the reflux of the Menſtruous blood to the greater Veſſels and a rumbling from the tumultuation of wind. A ſwelling as wel of the whol body with a laxneſs and ſoftneſs from the plenty of the Humor, as either of the Eye-lids, eſpecially in the morning after ſleep, when in the night the heat hath raiſed more Vapors and ſerous Humors than could be diſcuſſed; or of the Legs and Feet, eſpecially about the Ankles from the abundance of ſerous Humors.

The

The CAUSE is the crudity and plenty of Humors, ariſing either from the ſuppreſſion of the Courſes, or from the Native ſtraitneſs of the Veſſels, or from that acquired by eating of wheat, Loom, Chalk, earth, Nut-Meg, drinking of Vineger, &c. Or from the obſtruction of other bowels. For the Menſtruous blood, the Paſſages not being open, doth regurgitate to the greater Veins and Bowels, obſtructs the Veſſels, and over whelms the heat. Hence ariſeth evil concoction in the Bowels, and the Humors are carried to the habit of the body.

The CURE is accompliſht. 1. *by bleeding*, eſpecially in the Ankle if the malady be new; and the blood is not turnd into another humor. It it ariſeth from the Evacuation of blood ſuppreſt. 2. By *Purging*, premiſing Preparatives. 3. By *opening obſtructions*, in which we muſt have reſpect to al the bowels; the ſuppreſſion of the Courſes muſt moſt of al be minded. There are commended, *Steel prepared*, *Scorzonera Root*, *Bezoar ſtone*, *Oyl of Cryſtals*, &c. In the diet Vineger muſt be voided.

Article, II. *Of the Suffocation of the womb.*

The Suffocation of the womb is a heap of Symptomes oppoſing ſomtimes the natural actions, ſomtimes the Animal, ſomtimes and more often the vital, by periods, joyned with a coldneſs of the whol Body, proceeding from a malignant Vapor raiſed from the womb.

'Tis called alſo *the Suffocation of women*, *the ſtrangling from the womb*, *the Hyſterical paſſion*, &c.

The SIGNS are either *of that at hand*, a wearinneſs of the whol body, with a weakneſs of the Legs, a paleneſs of the Face with a ſad look, a nauſeouſneſs which is ſeldome ſucceeded with vomiting, oftentimes a certain weariſomneſs, and loathing of meat, and that ſomtimes with a murmuring and rumbling of the belly, ſomtimes without theſe. Or *of that preſent*, in which a Vapor raiſed up to the heart, and ſtopping the vital ſpirits, a ſmal fainting away is Cauſed, the Pulſe is changed a little, the body grows cold, the ſpirits recurring to the heart, fear and deſperation moves the patient; the ſame thruſt to the Head and Jaws, ſomtimes the Jaws are bound up, and the Patient ſeems to be ſuffocated. The motion of the breaſt and Midriffe is hindered the Animal ſpirits being ſtopt, and breathing is almoſt intercepted, the ſick living in the mean while by Tranſpiration; ſomtimes a madneſs of the womb is added with prating, and fury, ſomtimes other kinds of madneſs ariſe. Somtimes ſleep and a drowſie Diſeaſe is induced, in which the woman falling as aſtoniſht, lies without motion, without ſenſe, with ſuch ſmal breathing that ſhe ſeems dead. Or *of the fit declining*, and then a certain Humor flows forth from the Privities, the Guts murmur; by and by the Eyes are lift up, the Cheeks grow red, ſence and motion return. Somtimes a coldneſs at the time ſlides from the Head by the Neck into the ſhoulder and Arme, which makes motion difficult, but preſently 'tis diſcuſt. Yet al theſe Signs do not happen in al. There have been thoſe who were troubled with continual laughing the Vapor inſinuating it ſelf into the Membranes of the Breaſt; there have been thoſe who ſeemed to frame the hiſſing of Serpents, the croking of Crows, &c. According to the proportion of the paſſages and breath breaking forth. *It differs from an Epilepſie*, becauſe in this the Convulſive motions are more univerſal, they have no remembrance of thoſe things after the fits which happened to them in the fits, the Pulſe is greater than before, a foam flows about their Mouth. *From an Apoplexy*, becauſe in this the fit is ſuddain without any notice; a ſingular ſnoaring afflicts them in breathing, there is ſo great a reſolution of the Parts, that though they be prickt yet they do not feel. *From a Syncope*, becauſe there are no preſages in this of the fit to come, the pulſe failes to the ſence, cold ſweats afflict, it vaniſheth in a ſhort time, when as the Hyſterical paſſion laſts ſomtimes a day or two. *From the dead*, they are diſtinguiſht by Sneezing, Cauſed by Sneezers and other means.

The CAUSE is a malignant Vapor, thin and ſpirituous, in one moment penetrating the whol body, and raiſed from the matter corrupted after a peculiar manner in the womb, and ſtirred either of it ſelf or by external things, as things ſweet-ſmelling, fear, Anger; and aſcending upwards not only by the Veins and Arteries, but alſo by occult paſſages. But what that is ſhal be ſaid in the Differences.

The CURE *is ſomtimes of doubtful hopes*, If it long afflict old women, becauſe it infers an impeachment of the ſtrength, and ſhews a

plenty of humors. If it happen to breeding women, a hard labour or abortion going before; if it assaile great bellied women, because it strikes a feare of abortion; *of better hopes*, if breathing be not hurt too much, if the fits do not return often. *It respects.* 1. *The time of the fit*, where care must be had. 1. *To intercept it*, by binding of the belly about the navel with a girdle made of the skin of a hart kild in the act of copulation with the doe. 2. *To raise her* by ligatures and painful Frictions, by pulling off the hairs especially of the priveties, by suffumigations made *of partridg feathers horses hoofs, an Eel skin.* By applying *of assa fætida oyl of tartar* to the note, &c. 3. *To reveal* by ligatures & frictions of the lower parts, glysters discussing wind, cupping-glasses without scarrification applyed with much flegm, first to the ancles and thighes, by and by to the groines, by putting up sweet things into the privities, as are oyl of Civit half a scruple; with oyl of nutmeg by expression one scruple. 5. *To discuss*, and that *outwardly* by oyl *of white amber* with the pouder of walnut flowers. By extract of castor, *of liver-wort. Mynsichtus his specificum diajovis.* The same Authors Theriaca *mulierum. Hartmans* essence *granorum Chamæactes*, in pennyroyal water, Treacle water & others that are appropriate. Outwardly by putting into the navel *oleum Jovis*, the salt *of the same described by Crollius.* By plaisters made *of the fat of a black cow fed with utrine plants*, clary *boyld in butter*, adding *gum tacamahach, & carama.* 2. *The time out of the fit, in which.* 1. *We must empty by Grulingius* his extract *of bryony*, of which in his cures, by Agricola his flores *virtioli Veneris et martis.* 2. *The womb must be strengthened by things internal and external that do resist the maligrity also.* The fæcula *of briony* is commended, *Castor*, &c. 3. *That diet* in which odoriferous and sweet things are, which are wont to move the womb, must be shunned. *For preservation* see *Zacutus his Hysterical Pils.* Prax. Hist. l. 9. c. 12.

The *Difference* is taken from the causes.

One is *from the seed* corrupted by the fault of the parts or humors mixt with it, and sending forth such a vapor, which is *known* by this, that the courses are right in the patient. Al the Symptoms are more vehement, the fit declining a humor like to seed flows forth of the privites. *'Tis Cured* (universals premised) by emptying of the seed by glysters, and utrine pessaries, by prohibition of the same, by medicines diminishing the seed, or by slender diet.

Another *from menstruous blood stopping*, and therefore corrupt, which is *known* by this, that the menstruous blood is joyned with vitious humors, especially a melancholly one. The symptoms are milder, with the signs of a suppression. *The Cure* must be turned against the suppression of the courses.

Another *from vitious humors*, concerning which consult with the chapter of the distemper of the womb.

Article. III. *Of the madness of the womb, and Melancholly of Women.*

The Madness of the womb is an immoderate desire of Venery, almost making women stark mad, arising from the plenty of seed, acrimony, and peculiar quallity of it.

The *subject* of this affect are, either well flesht virgins, black, and having adust blood, or the youthful flourishing widows; or married women that are barren by the impotency of the husband.

The *Signs* are various, some wast away in sadness and silence suppressing their desire; others, reason being overcome do prate, are lascivious, break into anger, laughter, weeping, wanton and baudy discourses. Some freely prostitute themselves to men.

The *Cause* is the plenty, heat, and accrimony of the seed, which ariseth if you consider the internal causes, from the heat of the womb, the distemper of the stones especially, and spermatick vessels; hence many labor of an inflamation of the womb, and itching, which are not affected with this madness. *If the external*, from a diet generating plenty and accrimony of blood by a draught of hippocras, in which there was some *Borrax*, &c. dissolved.

The *Cure* is accomplisht. 1. *By bleeding* if blood do abound. 2. By *purging* if hot and adust humors be mixt with it. 3. *By alteration* by coolers, as are *Letice, Purslan, water-lilies, Ladies navil*, by things that act by an occult quallity, as are, *the chast tree, rue, hemp, Camphire, hemlock*, which are rather to be used in Nunneries.

The Melancholly of Women is a dotage with sadness, anxiety, weeping, or laughing by intervals, invading without a feaver, arising from a melancholly vapor, darkning the animal spirits.

The

The SIGNS are various, the women are ſad, complaine of a grief at heart, yet are not able to expreſs the cauſe of it. The Arteries about the Spleen and back do beat more vehemently than uſual, a pain of the left ſide againſt the heart afflicts, ſomtimes ſeazing on the left breaſt, the Vapors from the intercoſtal Arteries being poured forth into thoſe places, and pulling and diſtending the Membranes of the Breaſt: a dryneſs of the Jaws ſomtimes troubles them with a ſuffocation. But theſe ſymptomes affect by intervals, becauſe the Vapor is diſperſed, and the ſtirring of the blood in the Arteries ceaſeth.

The CURE reſpects. 1. *Bleeding*, which *muſt be ordered* at the beginning, if hot blood do urge it, 'tis to be admitted commonly in the Arme, if the Courſes be not ſtopt, if otherwiſe, in the Ankle ſome daies before the flux; *it is to be urged*, ſparingly if the evil be far gone. 2. *Preparation*, by thoſe things, which alter the Melancholly Humor, and rejoyce the heart, as are *the Confection de Hyacintho and Alkermes*. 3. *Emptying*, by things that Purge Melancholly, with which, things proper for the womb muſt alwaies be mixt.

Chap. 3. *Of the Symptomes proper to married women.*

Article, I. *Of the Symptomes about conception.*

Point, 1. *Of Barrenneſs.*

THe Symptomes proper *to married women*, do reſpect, *Conception, going with Child, and the delivery.* The Symptomes about conception that meet us are, barrenneſs, and a mola.

Barrenneſs is an impotency to conceive, proceeding from the fault either of the Genitals, or of the Seed, or of the Womb, or of the menſtruous blood.

There is no need *of Signs, the Cauſe and Cure* vary according to the Nature of the differences.

The *Differences* are taken from the Cauſes and Parts.

I. One is *by fault of the genital parts*, whether it be *a Cloſure* of the Womb from the birth, which may be artificially cleft; or *a tender Conſtitution*, either by reaſon of the Age or ſtructure, for which a mans Yard is not admitted; or Tumors, Ulcers, and excreſcencies in the Neck to which the Cure muſt be directed; and this is not properly called barrenneſs.

Another *by the fault of the* Seed, of which ſhal be treated in the following Difference.

Another *by the fault of the womb*, of which we wil treat in the third Difference.

Another *by the fault of menſtruous Blood*, when *either* that is wanting, which happens either the womb being covered with a ſtar, or the blood turning into Fat; *or* 'tis too Copious, that the Seed is overwhelmed and ſuffocated.

II. One is from *the defect and unfruitfulneſs of the Seed*, which ariſeth. 1. By reaſon *of tender Age*, or too old. 2. by reaſon *of the diſtemper of the Veſſels* dedicated to generate and contein the ſeed, and *then* the Woman in Copulation perceives none, or little and ſhort Pleaſure. There are Signs of the womb affected, or the whol body, or ſome member hath a Vitious Conſtitution. *The Cure* muſt be turned againſt the diſtemper of the womb. 3. By reaſon *of the Evil Conformation* of the ſame *Veſſels*.

Another is *from want of a Proportion between the mans and womans* Seed, which conſiſts between manifeſt and occult qualities; but cheifly it ariſeth. 1. *From medicines* that extinguiſh Seed, as are a Goats commodity, Mint, Rue, Camphure, which either the patient, or ſtanders by wil make known. 2. *From Inchantments*, and *then* the man cannot Copulate with his own wife, he can with others, he hath a deſire to couple with his own, and if he do couple with her he cannot ſend forth his Seed. *In the Cure* is commended a draught of cold water fallen from the mouth of a ſtone Horſe drinking in a Current, and ſuddainly received in a Veſſel.

III. One is *when the womb doth not attract the Seed that is caſt in*, and that either by reaſon *of a cold* and moiſt *diſtemper*, of which formerly; or by reaſon *of ſome Organical diſeaſes and ſolution of Unity*. Where note, that very often too much Fat, eſpecially of the Caul, doth compreſs the mouth of the womb; that barrenneſs from Ulcers is hardly Cured, nay though a great Ulcer were Cured, yet that would remain by reaſon of the Skar left, for which the blood can neither adhere to the womb, nor flow thither.

Another is *when the womb doth not retain the Seed cast in*, and that, 1. Either by reason *of a moist distemper*, which is known by this, that the Fibres of the womb are Relaxt, that it cannot contract it self, the Seed by reason of it's Mucousnes cannot adhere to it. 'Tis retained for some few daies, then cast forth. *The Cure* must be turned against the distemper. 2. Or by reason *of the thickness of the womb*, for then the blood doth not slide thither, from which the Seed ought to be joyned to the womb, and take its increase. *The Cure* requires extenuation by a slender diet, exercise, purging, Sweating, and others. 3. Or by reason *of its Slipperiness*, and then a womans Flux or virulent Gonorrhea hath happened; the Seed conceived is extinguisht, and Rapt away. The cure must be fetcht from their places. 4. Or by reason *of the gaping of its Orifice*, and then either hard labor or abortion went before. The Fibers are so relaxt, that they cannot contract themselves. In the Cure amongst astringents, a Fomentation of the Leaves of Lentisk, Mirtle, &c. takes place. 5. Or by reason *of a Cough, Sneezing*, which happens after Copulation, &c. By which the Seed is shaked forth.

Another is *when the womb doth not alter the Seed injected*, and that either by reason *of a distemper*, when the womb by an immoderate coldness grow thicker, the Orifices of the Vessels belonging to them are very streit and narrow, whence neither the Secundine can be knitted to the Mouths of the Vessels, neither doth the blood flow in sufficient quantity, which is Serous too; or by reason *of organical diseases*, as Tumors, Ulcers, &c.

Point, 2. *Of a* Mola.

A Mola is a mass without bones and bowels from an imperfect conception, generated by the fault both of the mans and womans seed, instead of a Young one.

The SIGNS before the fourth month are not so exact that it can be certainly known, in process of time 'tis discovered by four signs. 1. *By motion*, for that is trembling and panting, rival to a constriction and dilatation, and it fals down like a stone with an eminent sence of a weight upon that side the woman turnes. 2. By *the figure and bulk of the womb*, For in that the Belly is lift up according to al dimensions, when in a true young one, 'tis principally raised towards the Navel, and is gently streched towards both sides. 3. *By want of milk*; for in a mola the breasts swel indeed, but there is produced in them only a certain crude matter, from the courses suppresst tending to the breasts, which in process of time vanisheth, when in those with child milk begins to be generated about the fourth month. 4. By *the Symptoms*, which are diverse, as difficulty of breathing, pains of the back and groines &c.

The cause is the fault of the seed, both of the Males and Females jointly, when the formative faculty is weak, either of it self, or because 'tis overwhelmed with blood. Whence molæ are wont to be made, if there be copulation when the courses are at hand, or flowing, or not wholy stopt. And of the womans seed severally, joined with blood, and then there are molæ altogether rude, and which being long exposed to the aire, being melted are dissolved into a watry substance. In virgins such a thing cannot happen, both because their weak seed wil not attract blood necessary to its conformation, and because the blood it self partly by its unaccustomedness, and the narrowness of the vessels of the womb in virgins doth not of its own accord flow thither. *In the cure*, 1. *bleeding* beares the palme, that the nourishment of the mola may be withdrawn, and it must be larger if the woman be plethorick, more sparingly it not so, in the ankle, or ham. 2. Strong and often repeated *purging*. 3. *Opening of the courses*. 4. *Chyrurgery*, of which see Authors. *Prevention*, requires. 1. That Copulation be not too often, especially in bodies not strong enough, by reason of the generation of weak seed. 2. That it happen not when the courses are at hand or flowing, or when the womb labors of a distemper.

See the *Differences* in physical observations, for this mass is not only without bones and bowels, but sometimes 'tis more membranous, viscous, fast together, not yeelding to iron. Sometimes it presents a long forme, rhomboidal, &c. sometimes 'tis destitute of all life, sometimes it lives the life of a plant. Sometimes 'tis voided with a child, without one, after one, and sometimes a dysentery goes before the voiding of it.

Article, 2. *Of the Symptoms of women with child.*

The symptoms of women with child are in a threefold Difference.

Some happen *at the first time of their bearing*

ing in the belly, and they are, 1. *A cramp*, troubling especially the leggs, which is taken away by anointing them by the fire with oyl of bays, putting on afterwards hot rowlers. 2. *The pain of the Sciatica*, with oyl of Venice turpentine anointed on drives away. 3. *Loathing of meat*, which ariseth from the suppression of the courses, the better part of the blood going to the young one, the worse remaining in the veins, from whence by agitation vapors are sent to the mouth of the stomach with the humors, a vitious quality is imprinted on it, and which ceases of its own accord when the young one is grown greater. 4. *A Pica*, or a desire to absurd meats, for taking away of which serves, the water distilled in the month of May from vine leaves. 5. *A nauseousness and vomiting*, which if it be easy ought not to be stopt, if difficult, 'tis not free from danger. 6. *Torments and pains of the belly*, which are raised by the wind from the humors about the womb, and sometimes do cast women into swouning fitts. 7. A *looseness*, which must be timely remedied, least abortion follow. 8. *A pain in the teeth* from part of the sharper humor carried thither. 9. A *pain of the head and vertigo* from the vapors sent forth, distending and troubling it.

Others trouble *in the middle months of their bearing*; and are.

1. *A cough* from a sharp vapor, or the veins of the breast, which by reason of the concussion of the muscles of the belly, watchings, pain of the head, is dangerous. 2. *A palpitation of the heart*, and faintings, which if it arise from plenty of blood, is a forerunner of abortion, and is cured by bleeding. 3. *Pains of the loyns and hipps*, either from the blood suppresst falling upon the vessels of those places, or from the child growing bigg. 4. *A flux of blood from the womb, nose, hemrods*, which is caused. 1. *From a rupture of the vessels of the womb* by evident causes which are known from the relation of the patient, 2. *From plenty of blood*, and then the woman is endued with a good color, she beares the flux wel, there is less danger, if so be the flux be not too much, 3. *From the weakness of the young one*, not attracting the blood, and then for the most part, either the birth is protracted beyond the due time, or is difficult, or abortion follows; there are signs *of the weakness of the child*, that is, 1. *Either* the woman is troubled with a looseness of body, by which the nourishment is withdrawn from the young, or her courses flow often when she is with child, or the mother is often or long sick, whence ariseth a fault of the nourishment; or the breasts which were swelled ful before, are extenuated, for want of nourishment; in the common veins of the womb and breasts, or the young one which already had began to move, or ought to move, *either* is not moved, or moves weakly. 4. *From evil humors* goading the expulsive Faculty; and then sharp things, coloured, stinking, flow forth with pain, there are signs of a cacochymy.

Others *happen in the last months*, as is, 1. *A stoppage of the urine*, which ariseth from a compression of the neck of the bladder by the womb (it happens cheifly when they stand) 2. *A hardness and slowness of the belly*, which ariseth either from a compression of the gutts made by the young one it self, or by an extraction of the moisture caused by the same, in women that have a hot and dry liver and spleen 'tis dangerous, because by a violent straining to evacuate, al the parts in the belly being ful, some dammage may easily ensue. 3. *A tumor and inflation of the veins*, either *in the leggs* by reason of the weakness of the liver, of which in its place; or by the suppression of the more serous blood, and then the women with child for the most part bring forth girles. We must forbeare from the cure, because the humor is emptyed with the after purgation after the delivery, unless walking be hindered: or *in the hipps* that they become as it were varicous, which proceeds from the same cause. 4. *clefts of the skin of the belly* by reason of the distension especially at the first birth, which are prevented with the anointing of laxative liniments, as are marrowes, oyles. 5. *The effusion of water*, which in the time of bearing is collected between the membranes that involve the young one; which wants not danger, because both the young one perceives some trouble from thence, and a hard labor follows for want of moisture.

Article, 3. *Of the symptomes about the delivery.*

The symptomes that happen about the delivery, are also not a few.

1. *An untimely flux of blood before the birth*, whence is a weakness of strength and swounings. In the cure of which emptyers must be shunned, the aire forbidden, cordialls and strengthners must be given; when the mouth of the womb opens it self, the membrane must be broken, and the infant brought forth.

II. *Abortion*

II. *Abortion*, when the child is born before the lawful time of bringing forth, which *is feared* if the breasts be extenuated, because it is a sign that either the blood does fail in the veins common to the womb and breasts; or that by the violence of the young one or rupture of some vessels it doth rush to the womb. If plenty of milk flow from them. If the great bellyed woman have often pains about the belly and loins which end towards the pubes & os sacrum, with a certain endeavor to cast forth of her womb. If after them, blood either pure, or ichorous, or water flow forth. *It ariseth* in general from the fault of the expulsive faculty of the womb, which is irritated either by the young one, or by other diseases, by which also the retentive faculty of the same is wont to be weakned. *In particular* 'tis caused cheifly, 1. *From too much cold*, and *then* the pain which ariseth about the Region of the Kidneys descends to the lower part of the Belly, and afflicts like to Nephritical pains. See a Fomentation in *Ludovicus Burgesia*, p. 1. c. 6. 2. *From a sudden fright*, and *then* outwardly may be applyed the Fomentation even now mentioned; inwardly, a little Oxycrate. 3. *From a Swooning*, where the Confection of Alkermes, and *de Hyacintho*, take place. 4. *From Anger*. 5. *From a Flux*, and then drying Meats must be administred, the Patient must be kept in Bed, we must act with Cordials and Strengtheners.

III. *The Birth coming forth not Naturally*, where 'tis a common admonition, that the navel of the infant, what way soever it comes forth, be thrust back into the womb again. If it *be difficult*, and cannot be promoted otherwise, 'tis happily furthered by giving three grains of *Mercurius vite* in wine, as *Billichius* witnesseth in his observations.

IIII. *The slay of waters*, al other things being ready for the birth, and then the membranes must not be broken, least violence be offered either to the navel or some member; a fomentation ought to be ordered with warm water, which must be followed with a liniment of fresh butter.

V. *An immature falling down of the waters*, and then fresh butter is good amongst moisteners, we must have a care of the outward air.

VI. *Colick pains*, which are taken away by giving oyl of sweet almonds with cinnamon water, or a carminative glyster following.

VII. *Weakness of strength by the birth*, and then may be administred, water of Tophies, Harts-Horn, Confection of Alkermes, Cinnamon water.

VIII. *The slow comming forth of the secundines*, either because they are *too thick* and tenacious and stick close to the sides; or because they swel by the long labor of bringing forth; or because the Navel is either *broke* or *cut off* before the Secundine is come forth. There are commended *the Secundines Specifick*, *the Eyes of a hair taken in March*, of which in *Hartmans* Chymiatry, &c. See *Burgesia*. l. 1. c. 14.

IX. *The Pains after birth*, by reason of the too great straitness of the vessels, which *are prevented* by giving of the Queens pouder after the first birth, which is compounded of the greater comfrey, one dram; Peach Kernels, Nutmeg, of each two scruples; Amber Greese, half a scruple; and one dram weight is given in broth if there be a Feaver, in wine, if not.

X. *Too great a flux of blood after the delivery*, either by reason of its plenty, or because she hath used hot things, or because of its thinness. *In the cure* take place, ligatures, a cloth dipt in Oxycrate, applyed to the Loyns and al the back bone, because there the Vena Cava Runs down. *Terra Cimolia* dissolved in Vinegar applyed to the same.

XI. *An insufficient Purgation*, by reason of the thickness of the blood, detained nine Months, induced by heat, which *is known* from hence, that it was more in the menstruous Flux. *In the Cure* takes place, the opening of the *Saphena*, but not before the womb is restored to its place. The use of Syrup *of Maiden-Hair* with Hyssop water, Wormwood water, Suffumigations, Fomentations, &c. But if her Purgation were not more in the Flux of her Courses, nor she did not abound with blood, we must act by dyet, and meats of good juyce.

XII. *A Feaver*, which is, 1. *From the generation of milk*, which is free from danger; it must be committed to nature, observing a goverment in dyet, and sweats must be promoted in which that is wont to end. 2. *From the suppression of the after purgation*, in the cure of which, note. 1. That a vein is most commodiously opened in the ankle; if that cannot be done cupping glasses with scarification are wel applyed, to the thighs and leggs 2. The time of the flux being over past, and a feaver urging, a vein in the arm may be opened. 3. *From the store of vitious humors*, in

in which we muſt diligently conſider whether the ſick ought to be purged, or not, the time of the flux being over, only gentle ones muſt be adminiſtred. Things that alter, which ſtop the flux, as cold things, ſour things, muſt be avoided.

[Read more of this ſubject in the Guide to Phyſick and Chyrurgery, *Riverius* Practice of Phyſick, and his Obſervations; and the *London Diſpenſatory*. Al of the laſt Editions, Engliſhed by me.]

Title, XIII. *Of the Affect of the Belly.*

A ſingle Chapter, *Of the Rupture of the Navel, and Inflamation of the Muſcles of the Belly.*

AMongſt the affects of the belly is, *A Rupture of the Navel, and Inflamation of the Muſcles of the belly. Omphalocele, which is a ſwelling of the Navel from the Guts, Caul, water, wind or a fleſhy ſubſtance fallen into it, or ariſing there.*

The *Signs, Cauſe, Cure,* do vary according to the Nature of the Differences.

The *Differences* are taken from the Cauſes.

One is *Inteſtine* or *Enteromphalos*, when the Guts ſlide into the Navel, which *is known* by this, that the Tumor is not very hard, nor ſoft; holding the breath it increaſes, and the Patient lying on his back it ſinks, the Guts going back into their place with a noiſe and rumbling. *It ariſeth* from blows, fals, jumping, lifting of a heavy weight, hard labor, riding, crying out, Mourning, Laughing, &c. *In the Cure* it requires. 1. *The putting of the Guts into their place.* 2. *The aſtriction of the peritonæum relaxt, the conſolidation of it if it be broke*, amongſt Medicines are, *Comfrey, Sanicle, through-wax, Rupture wort*, Boyled in red wine and given. *Inciſion* muſt be admitted at laſt, when no other things do good. *By Ligature* ſomtimes we provide againſt this affect.

Another is *of the Caul or Epiplomphalos, when the Caul ſlides into the Navel*, which *is known* by this, that the Tumor in one part is ſofter, broad at the Baſis, and narrow towards the top, that there is no pain preſent, and the ſame being preſt with the Fingers it ſinks, the Caul returning into its place, *It ariſeth* from the ſame Cauſes. *The Cure* is the ſame, but in a ſoft and young body 'tis eaſier.

Another is *watery or Hydrophalos, when the Navel is lift up into a Tumor by water*, which *is known* by this, that the Tumor is lax, and if it be preſt, 'tis neither increaſed, nor decreaſed, that 'tis joyned with a waving, and holding a Candle to it, it appears clear and perſpicuous. *It ariſeth* from water collected between the Peritonæum and the Skin of the belly, proceeding from the Cauſes mentioned in the Dropſie. *In the Cure* take place *things drying and diſcuſſive*, if theſe ſucceed not, *inciſion made like a half Moon.*

Another is *windy, when wind diſtends the Navel*, which is known by this, that the Tumor is ſoft, yeilds to the Finger, gives a ſound like a drum, and let the Patient lie which way he wil it is not changed. 'Tis hardly *cured* if it have its Cauſe lurking in the bowels which nouriſheth it, in Infants 'tis eaſily taken away with diſcuſſives.

Another *is fleſhy, when a fleſhy ſubſtance lifts the Navel up into a Tumor*, which *is known* by this, that the Tumor is hard, and being preſt doth not yeild, and is changed by no manner of lying. 'Tis *Cured* by cutting of the fleſh performed by a cauſtick Medicine or Iron, unleſs it turn to a Cancer, for ſo the evil is incurable.

An Inflamation of the Muſcles of the belly affects, either *the right Muſcles* or *tranſverſe*. If *thoſe* the Tumor is oblong, and extended al over the belly. The Skin is not handled without pain, and being laid hold on doth not follow. In every poſture the bulk of the Tumor remains the ſame. If *theſe* the deep parts are more affected, and becauſe thoſe Muſcles are Membranous about their end and have many Nerves, the pain is the greater; 'tis diſtinguiſht from an Inflamation of the Liver by this, that it follows the Figure of the Muſcles, and is not ſo round. *The Cure* is ſuch as in other Inflamations, and ſo much of the lower Belly.

An

An Appendix. *Concerning the Gout.*

An arthritis is a pain of the parts about the joints, caused by a defluxion of a serous and sharp humor, poured forth of the veins and arteries into them, assailing by periods, having joined with it an hinderance of motion.

The subject is the membranous parts, and those endued with sense about the joints, from which neither are the membranous ligaments excluded. The pain is caused more in them, both because the humors are thrust thither from the veins and arteries, and because being carried thither they are in less room.

The SIGNS are almost evident by the relation of the Patient; at first assault the pain invades the great Toe, and for the most part of the left Foot, afterwards a Tumor, heat and redness is manifestly perceived; there is added an impotency to move, and in an Arthritis of long continuance hard Knobs, &c.

The CAUSE is a solution of unity induced, *by a serous, Salt, and sharp Humor*, this ariseth from the use of nourishments, as plants, Carpes, unwholsom wines, by the accession of a vitious constitution of the bowels, as of the Liver and Spleen, *the efficient Cause of that Salt or Tartar.* It oftentimes comes neer to the Nature *of spirits* which have a most biting Salt in them, whence it often wanders up and down. By reason of the want of sufficient separation *'tis mixt with the blood.* By *the veins and arteries* 'tis sent to the *joints*, whence when the fit is at hand, the vessels which lead to the hands and feet, and are inserted to the utmost joints, do swel, by reason of their weakness, either natural from their parents, or acquired, by labor, excess of the air, and other things altering the joints, from whence they become softer and more relaxt, nature being stimulated by its plenty, disburthening it self, and sometimes being helpt by external causes, as the spring or autume aire, affections of the mind, the retention of accustomary sweating &c. 'tis moved to *the joints rather* than to other parts, perhaps because the ligaments and tendons are nourisht with a more terrestrial blood, and that hath affinity with the tartarous humor.

The CURE is in general *most difficult*, both by reason of the disease it self in respect of errors in dyer, and other things, & by reason of the fit, because the humors dispersed through the ligaments, membranes, and nerves, by reason of thickness & coldness of those parts, are hardly discust. *None at al* if any deadly disease be joined with it. If there be a luxation, for though the joint may be reduced, yet the ligaments remaine relaxt; if in the luxation, the cavity of the joint be filled with a tophous matter, because before that is taken away, the joint cannot be reduced; that cannot be taken away, if it be hereditary. It *respects*, I. *The fit*, in which, 1. *The humors rushing to the part affected must be taken away*, where *bleeding* takes place, if blood do abound, and that *quickly*, because the flux is urgent. *Of the basilica* if al or many joints be affected; *in the opposite side* if one only. *No bleeding* if flegmatick blood predominate, least discussion be protracted. *Purging* when the pains are at hand, for which end is thought to serve, *bernodactils, Paracelsus his arthritical pouder, Horatius Angenius his electuary cariocostinum, the gum for the gout* in stronger bodies; in the weaker, the matter boyling very much, *Solenander his syrup of buckthorne, mechoacan &c.* Sweating, which is very wel caused with the decoction *of China, of the root of bur dock, with treacle, harts-horne prepared, antimonium diaphoreticum*, 2. *The afflux must be hindered by repellers*, if the pain be increased by a suddain and too great afflux of humors, but not by them alone, least the motion intended by nature, be stopt with danger of life, but mixt with things anodyne. The liquor *of the flowers of mullein* is commended, and *hartshorne burnt* steept and boyled in the water of mullein flowers and applied to the greived part. 3. *The pain must be mitigated*, where takes place, *Stockerus* his *oleum raninum, l.* 1. *c.* 58. prax. *Rulandus his antipodagrical water* in *Hartmans* Chymiatry. *Lacuna his ointment* of dane wort. *The foame of the decoction of china root* in *Zacutus*, l. 3. hist. med. hist. 38. Anointing *with the oyl of mans bones. Freitagius* his *secret* of opium and camphure in his book of opium, *Another of the same Authors*, there of sugar of saturne, and the salt of the same &c. *A lye* sufficiently seasoned with salt, the pouder *of oriental Bezoar stone*, or harts-horne prepared, mixt with hony of roses and vineger by a gentle heate, and layd on by way of cataplasme &c. 4. *The matter which hath flowed thither must be discust*, where take place the ointment *of castor*, Solenander his *mushromy of the oake*, consil. 24. sect. 4. *The water* in which brass and iron are quenched, and afterwards *mercurius vitæ* is steept, *the de-*

coction

coction of Nettles, made with wheaten bread, Salt, wine and water, &c. 5. *The Knobs muſt be diſſolved*, for which purpoſe ſerves, *A Cataplaſme of old cheeſe*, dipt in the ſtrong broth of Salt Hogs fleſh; and that which you may find in *Hartmans* Chymiatry. 2. *Prevention*, which requires. 1. *A convenient diet*, in which ought to be ſhunned, the Air in exceſs, meats that do adminiſter matter for it, drinking of Moravia and Auſtria wine, &c. too great paſſions of the mind. 2. *Bleeding*, unleſs the body be cold, ſome open the Veins of the great Toes every month. 3. *Purging*, which ought to be ordered ſpring and autum, and it requires gentle ones rather than ſtrong. 4. *The uſe of things good againſt the Gout*, as are *Germander*, *Ground pin*, *round Birth-wort*, *the true Pontick Rhubarb*, *&c.* 5. *The ſtrengthning of the Joynts*, for which end ſerves, *a Lie made of the Aſhes of beech*, and often ſtrained, with the like quantity of wine and Alum, two ounces.

As concerning *the differences*, its ſpecies are, *the Foot-Gout*, *the Hand-Gout*, *the Kneer Gout*, *and the Hip-Gout*. Concerning them we meet with nothing beſides what hath been formerly ſpoke: Concerning the laſt we muſt obſerve. 1. *That it ought to be diſtinguiſhed* from that pain, which indeed is moſt vehement, but neither cauſeth a Tumor, neither conſiſts alwaies about a joynt, but in the middle ſpaces alſo between the joynts; oftentimes after it hath afflicted a man once or twice it returnes not again al his life time. 2. *That it hath* this *property*, that 'tis diffuſed more largely than in other joynts, and often times to the adjoyning parts, both by reaſon of the largeneſs of the Hip bone, and the diſtribution of the Nerves, which come from the Loyns and *Os Sacrum*, to that Articulation, to divers parts. 3. That 'tis very hardly *Cured*, as wel by reaſon of the deepneſs and largeneſs of the place, as for the plenty of matter that is wont to be collected there. *In the Cure* for derivation a Vein in the outward Ankle is wel opened, if the pain tend outwardly; the Saphena in the inner Ankle if the pain tend inwardly. We muſt act with ſtrong Purgers. *The Diſcuſſers* are *Sciatica-creſſes*, *winter Creſſes*, *dittander*, and others, concerning which conſult with Practitioners. We write only an *Idea*. And let theſe ſuffice of the Diſeaſes of the lower belly and joynts.

THE ELEVENTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Concerning Poysonous Diseases.

Title 1. *Concerning the French Pox.*

HItherto we have treated of diseases that were not poysonous; *to those that are poysonous* belong *the pestilence, the leprosy of the Arabians, the French pox, and poysons.* Of the two former we have formerly treated, now we must speak of the French Pox.

But the French Pox is a virulent & contagious cachexy of the whol body, for the most part raging with a hot distemper, falling of the haire, spots, swellings, stubborn ulcers, and cruel pain especially at night, enemy to the liver and nourishing faculty, arising from an excrement infected with a malignant and poysonous quality, transferred by contagion, but especially by copulation, and tyrannizing with many symptomes.

It hath divers *names*; 'tis called the French, the Italian, the Neapolitan, the Spanish, the Indian disease, Syphilis, the gout of the privities, the great Pox, &c.

The adequate *subject* is the whol body, but the sewel of the evil is *the liver* it self, from which polluted, a crude and corrupt blood is dispersed into the whol habit of the body, and the nourishment of every part is depraved.

The signs of it begining are, a light *weariness* of all the members with a heavines of the whol body, because the natural spirits which are the immediate instrument of the supporting faculty, are infected, a smal and wandring *pain* through al the parts, which a vapor raised from the liver induceth: by the same *the color* of the face is changed, and under the eys there appeares a blewish circle as in menstruous bodies. An exceeding *heat* ariseth in the soles of the feet, and hands, even in the winter. The sleep is interrupted, a moderate *rottenness* about the privities, either because the filth of

of womens ſecrets hath corroded the skin, or becauſe the liver drives forth to the privities the contagion communicated to it by the natural ſpirits. Moderate, ſmal *buboes*, not painful, nor increaſing much, becauſe the liver drives out evil Excrements to the groines as to its emunctories. A french *running of the reins* which is inferd by the weakneſs of the ſpirits governing the faculties of the teſticles. *Of it confirmed* are hard *puſtles* al over the body, eſpecially the head and beard, ariſing about the fourth or ſixth month, ſomtimes with a cruſt, ſomtimes not; ſomtimes with filth, ſomtimes not, which ariſeth either from a contagious matter ſent from the liver, or from the part heaping up excrements by reaſon of the fault of concoction. Callous *ulcers* in the privities. A *ſoftneſs* and hanging down *of the uvula* in the throat, which is followed with a hoarſneſs of the voice; for the nattural ſpirit being weakened, flegme ariſeth in the ſtomach, ſnivel in the braine, flegmatick blood in the veins, and in proceſs of the diſeaſe being aduſt, it becomes ſharp. *Tumors* of the glandules in the jawes the matter infected and voided by the emunctories, being communicated to the head. A *Corruption* of the palate and teeth, which ſhewes the higheſt degree of the diſeaſe firme, crying *Paines* ariſing before the evening, which proceed either from a malignant vapor, or from the excrement heaped up about the perioſtia of every part. *A Corruption* of the bones of the head and armes, before an ulcer doth ariſe. Malignant *ulcers* beſetting the whole body for the cauſes now given. *A falling* of the hair, *cruſts*, *calloſities*, *clefts*, in the palmes of the hands and ſoles of the feet, which ariſe from a flegmatick matter very much burnt. *A tingling* of the ears which is produced, when the hurtful vapor from the head cannot be expel'd by the skin, nor by the mouth, nor noſe, and therefore by the laſt endeavor is thruſt to to the ears. See more in Practitioners.

The *Cauſe* is an excrement polluted with a poyſonous mallignity, poſſeſſing the whol body or ſome parts of it, and corrupting the blood conteined in the veins, and making it unfit for good nouriſhment; *'tis communicated* by contagion which is promoted *inwardly*. 1. By the weak force of the natural ſpirits, and the liver it ſelf. 2. By the largeneſs of the veſſels, that a paſſage lyes open for the vapors and filth. 3. By an eaſie inflaming of the humors, by which that is moſt eaſily ſnatcht. 4. By the nature and ſoftneſs of the ſubſtance in the parts. 5. By the affection of the minde, which if it be vehement, they that couple are not eaſily infected. *Outwardly by contact*, by communication of ſubſtance, viz. of the filth, Ichor, or ſutty vapors; which is the eaſier, if the parts be ſoft, thin, and be hot; for which makes alſo, *copulation* with one infected, ſucking of her milk, beſmeering with the ſpittle, kiſſing, lying in bed with her, uſing the garments of one infected, &c.

The *Cure* is more difficult, if it ſeaze on thoſe once cured. If it fal upon a hot and dry diſtemper, becauſe either things propper cannot be adminiſtred, or if they be, another dammage is brought upon the body. If it fal upon a hot and dry time of the yeare, becauſe the ſtrength is then moſt of al exhauſted. If a Feaver, conſumption, or other greivous ſymptom be joyned with it; if there appeare in the joynts, callous, ſcirrous and hard tumors. If the ſick be an infant, and hath ſucked in this evil with the milk, becauſe the virulency goes into the ſtomach with the milk, which infects the liver and blood. *It reſpects.* 1. *Preſervation*, the which can ſcarce be taught with a good conſcience, leaſt there be a door opened to wandring luſts, unleſs perhaps you underſtand that prevention, by which one infected endeavors to oppoſe the accuſtomary ſymptoms, that they grow not upon him. 2. *The Cure* which is accompliſht. 1. *By the empty ing of the blood, and vitious humors wel prepared.* Where note. 1. That bleeding muſt not be ordered, if the bubo be ſuppurated, leaſt the matter be called to the inward parts; it muſt be ordered, if blood do abound, that appropriate medicines hot and dry may more ſafely be given. If the matter be not moved to a peculiar part. If the matter tend to the head the cephalick vein muſt be opened; if to no part, the baſilick veine. If there be a rottenneſs in the yard or running of the reins, in the lower parts, if the bubo tend not to ſuppuration. 2. *Purging* muſt be ordered at the beginning, leaſt there be hurt done to a foul body by things alexipharmacal; it muſt be continued al the time of the cure, if matter be collected *that muſt be omitted*, if the matter ſtick cheifly in the external parts; mechoacan and jallop, adding things ſpecifical, are of beſt uſe here. 2. *By overcomming the mallignity and virulency, in bearing as wel in the humors, as parts, and eſpecially imprinted on the liver*, which is perfected by ſweaters and ſalivation. *The ſweating* medicines that are *propper* here, are *pock-wood*, which is better

administred in a decoction or spirit, than any other forme, that its oyly and rauzeny part may be drawn forth, in which al the vertue consists, and in a lesser quantity at first, least it bring some damage by its too much heat, especially when catarrhs are present. *Sarsaparilla*, the barke of which root ought cheifly to be taken casting away the pith, but must not be given where there is present a pain of the eyes. *China* which being temperate, and having somwhat nourishing, is most comodiously given when there is an atrophy. *Sassafras* that is of an aromatical smel, *oake wood*, *Juniper* with its berries, beach, box. Of which see *Renealmus* his observations. *Bezoarticum animale mixtura simplex*, *persicariæ orcanum*, Hartmans *white spirit of mercury*, and his *red*, *&c. the manner of using them*, *Fallopius* and *Quercetan* in peculiar tracts of the French pox have evidently described, and *Hartman* in his Chymiatry, *Senertus* in his 6. Book of practice. *A flux* is raised with *Mercury* or quicksilver either *taken inwardly* where turbith takes place taken from one grain to three, pils of one scruple; of pouder of mastick with a few grains; as from three to eight of mercurius dulcis sublimate, made up with hony into bals, and chawed somtimes for thirty dayes. Or *outwardly by anointing*, somtimes applying a greater, somtimes a less quantity of quick silver (two scruples may be used every time) which the emptying of the body by purging or bleeding ought to go before. The mixture and mortification of pure *mercury* and vivified by cinnabar, with hoggs greace, oyl, butter, turpentine, must be *followed* with the bringing forth of the mercury out of the body, that none of it be left there, by sweating, holding of gold in the mouth, drinking of filings of gold, and other waies. Washing of the mouth and jawes with warm milk. Hindering of inflamations with the decoction of plantane, self heale, &c. *But in general we must observe* that mercury must be applied, when the decoctions of the woods cannot be admitted, by reason of somewhat forbidding them, or when the disease cannot be overcome by other remedies, and that not unless the strength be firm. The body not too foul, nor too much wasted; the aire not very hot, the patient before the disease being free from a palsie and trembling. Suffumigations are too vehement, therefore they are reckoned amongst the last remedies. 3. *By convenient diet*, whose exact description see amongst authors.

The cheif *symptoms* we meet with in the French pox, are,

I. *A rottenness*, which is in a threefould difference. 1. Either *'tis caused by contact* or touching the privities of one sex being infected. And *then* pustles breake forth, first smal and white, which exceed not the thickness of the least grain of millet: there breaking there remains a round ulcer having a white point in the middle: somtimes the whole nut is compast with them coupled together as with a ring, without pain, with a light itching. *'Tis cured* with oyntment of diapompholligos, or nightshade water in which a little roch allum is dissolved layd upon raggs. *Or by transmissing of a thin excrement from the liver to the privities*, and *then* there is a round ulcer, without a white specke, livid, having the lipps a little puft up, purple coloured. *In the cure* repellers must be shuned, least a bubo be caused. It may be washt only with the decoction of pockwood with plantan water, &c. or *by the heating of the excrements cleaving to the privities by copulation, putrefaction and infection*, and *then* the ulcer is malignant, not round, of divers figures and colours, having callous lips, creeping, &c. Concerning the cure of it consult with *Fallopius*, c. 85. 2. Or *'tis in the bosome of the womb*, the cure of which after washing requiers *Fallopius* his pessary. Detersives if the ulcers begin to be suppurated; caustick, if the putrefaction be strong, a red hot iron, having a care of the sound part, a dayly washing of the privities with the decoction of pockwood with scabious and tormentil. Or *in the channel of the yard*, which is *known* by the filth flowing forth, and great pain in the time of pissing, and is cured after the same manner as that which followes. Or *in the nut*, to which those things going before and which follow after, ought to be applied. 3. Or *'tis with a tumor of the foreskin* that the nut cannot be uncovered, or if it be uncovored, 'tis done with a great deal of pain, concerning which see *Fallopius*. c. 83. Or *with a callousness of the foreskin*, of which the same author. c. 84. or with a callous skarre, or *with warts or excrescencies*, of which. c. 87. and 88.

II. Buboes

II. *Buboes*, which *are Distinguisht* from others that are not gallical, that either a Rottenness, or a contagious running of the Reins is present, and Copulation went before, there being no other certain cause existent. But those Tumors are *of two kinds*, somtimes *the matter is collected about the Glandules in the membrane that covers the Glandules*, or that fils up the Cavity of the groins. Somtimes *the proper substance of a Glandule swels*, which Tumor somtimes riseth to so great a bulk, that 'tis bigger than a loaf. *In the Cure* bleeding and purging must be avoided unless the Bubo either decrease, or be at a stay. *A Diachylum Plaister*, doth molifie and ripen it, being opened *Opodeldoch* is wel laid upon it. *The Black Oyl of Tartar* is a most excellent discussive.

III. *A falling of the Hair*, which ariseth from an evil Humor knawing the Roots of the Hairs. *In the Cure*, astringent things must be shunned, gargles and sweats here do much good; to which may succeed the washing of the Head with *Fallopious* his lie.

IV. *Pains of the Head*, in whose cure inwardly takes place, *Hartmans Diaphoretick Oyl* of Mercury, outwardly *Vigoes Magistral* Plaister *de ranis*; *and that of Platerus*, Observat. l. 3.

V. *Pains of the Joynts*, and especially of the lower parts between the Joynts, which at night grow more feirce, because then the pores are stopt, and they are taken away by fomentations.

VI. *Pustles, Efflorescencies, Scabs, clefts*, in the palms of the Hands and soles of the Feet, the Cure of which see in *Hartman*.

VII. *A running of the Reins*, in which the same *Hartman* commends, green Mercury precipitate, or the Gum of Pockwood, which being given, Turpentine washt in violet water, and dissolved with the yelk of an Egg ought to be administered with the Decoction of Sarsaparilla. *'Tis distinguished* from another by this, that it causeth little or no itching, nor doth not so soon cast the Patient into a Consumption.

VIII. *A tingling of the Ears*, which is very difficultly cured, yet somtimes it vanisheth by the use of the decoction of Pockwood. Septalius commends *an Asses water* distilled, in which Pockwood, some castor and a bundle of Horse mint have steeped al night, and dropt into the Ears, or the fume of it received.

IX. *Hardnesses, or Knobs and Gummosities*, for the Cure of which Platerus hath afforded excellent Plaisters in the third book of his Observation. Hither belong *Hartmans* Oyntment made *of Unguentum Aureum of the shops, and Mercury sublimate.*

X. *A Consumption*, in the Cure of which *Septalius* tels me, l. 7. Of his Animadversions, p. 322. That the Decoction *of Sarsaparilla*, made with leane Veal, is admirable.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. Al of the last Editions, Englished by me.]

Title, II. *Of Poysons.*

Chap. 1. *Of Poysons digged out of the Earth.*

POysons considered in special are, either *digged out of the Earth*, or *Vegetables*, or *Living Creatures.*

The cheife and most common *of those digged out of the Earth*, are the following.

I. *Aqua Fortis*, whose strength is broke by the Mucilage of Quince Seeds, Flea-wort, Gum Tragacanth, &c.

II. *Antimony*, whose Antidote is bole-Armenick given with Oyl of Cloves and a little Wine. That it hurt not with its Vapors whiles it is wrought in the fire, we must Eat butter with Rue, or drink Zedoary water.

III. *Lapis Lazuli*, which if it be taken either ill prepared, or in a greater quantity, it ought to be cast up by vomit, and be tempered with a drauft of warm Milk, especially asses Milk.

IV. *Arsnick, Auripigmentum, Sandarach*, which somtimes infect by their smel; their specificks are, Crystal digged out of the Earth poudered and drank, one dram weight with new Oyl of sweet Almonds and Oyl of Pine Nuts given, three drams weight.

V. *Burnt brass, Scales of Brass, the flour of Brass, the rust of Brass*, which are weakned by sheeps Fat taken in broth, are killed by Bole-Armenick given with Honey and water.

VI. *Refuse of Iron, and the rust of Iron*, whose

whose antidote is thought to be one dram of a Load-stone made into Pils with the juyce of Mercury.

VII. *Lead*, to which are opposed the Kernels of quinces husked, bruised and given, two drams weight with sweet wine.

VIII. *Quick-silver*, against whose fume received we proceed with a draught of wine in which some Cephalick things have been boyled. Sublimate is resisted by Oyl of Tartar, or Salt of Wormwood.

Chap. 2. *Of Vegetable Poysons.*

VEgetable Poysons, or those of plants, are as follow.

I. *Aconitum, or Monkes hood*, whose antidote is Andromachus Treacle, or Terra Lemnia in wine; outwardly the swelled body must be anointed with Oyl of St. Johns wort, and Scorpions.

II. *Spurge*, against which a vomit being premised, Andromachus Treacle is good with Carduus water.

III. *Mezereon*, which is resisted with water Germander, red Coral, Treacle, and Terra Lemnia.

IV. *Black Hellebore*, whose antidote is the pouder of the flowers or Roots of white water Lillie, or of Parsnip seed with wine.

V. *Coloquintida*, whose force Treacle doth infringe.

VI. *Euphorbium*, whose force is broke with Citron Seed in wine in which Elecampane Roots have boyled.

VII. *Green Coriander*, which causeth a furious raving, and hath the Root of swallow wort in wine for its antidote.

VIII. *Mandrakes* which causeth a heavy sleep, its Symptomes are resisted by garden radish taken sometimes with Salt.

IX. *Henbane*, which they that have taken of it, do sometimes rangle; and dote like drunken men, sometimes think that they are beaten with rods, by reason of an Itching caused in the whol body; its antidotes are Pistachoes, castor, Rue, Nettle Seed.

X. *The Walnut Tree*, whose shade, if any one lie under it, it doth hurt, and causeth pains of the Head: they are taken away with a lie of betony, Marjoram, Lavender, &c.

XI. *Nux Vomica*, whose antidote is Zedoary, two drams weight, Citron Pill or the Juyce of it, Juyce of the Myrtle or quinces.

XII. *Opium*, upon the too much use of which a Heavy sleep seazeth with a Vertigo, and itching of the whol body, whose antidote is assa Fœtida and castor, to which add Rue, and Origanum.

XIII. *Mushrums*, which if they be taken either in too great quantity, or be not wel concocted do cause Suffocation, raise the hickops, stop the Urin, and exulcerate the Guts. *In the Crue*, are commended the ashes of prunings of vines, with honeyed water; Treacle and other things.

Chap. 3. *Of Poysons from live Creatures.*

THe cheife Poysons which are inferred by living creatures, are those which are Caused,

I. *By an aspe*, whose wound is so smal, that it can scarce be seen; upon its biting, there come a heavines of the Head, sleepines, palenes of the Face, often gapings, &c. In the Cure we must provide by ligatures and Scarifications that the Poyson peirce not into the body; Treacle with bruised Rue, must be laid on the wound. Things alexipharmacal must be given inwardly, amongst which are commended, the leaves of Mullein, Avens, boyled in Vineger.

II. *By a Viper*, at whose stroke first the blood comes forth pure, which is followed by a bloody and frothy filth like to the rust of brass, with a notable tumor of the part and whol body, pustles adust and blackish in the part affected. Its antidote is costus given from half a dram to one dram; with wormwood wine or the Decoction of wormwood, an Hares Runnet, Leeks, &c.

III. *By a Scorpion*, at whose stroke do follow pain, inflamation, a Tumor, pustles about the wound like warts. 'Tis resisted by sage, water germander, wormwood, gentian, birth wort, up-right vervain, wild time &c. One hath been freed by frankincense bruised in whom the scorpion had left its print.

IV. *By a Lizard*, which leaves in the wound for the most part, its subtile, smal black teeth; the teeth must be drawn out with Cupping-Glasses, a Cataplasme of the crum of wheaten bread made with the Decoction of Rue, Galick, gentian, must be applyed. Inwardly we must act with things alexipharmacal.

V. *By*

By an Horse-leech, which if it be ill applyed, that the wound go not wel, a Cataplasme of Agrimony bruised must be laid upon it. If it have got into the Guts, 'tis voided by applying to the Anus Ox dung dryed moderately hot, strewed with the pouder of woodworms or castor, first casting in a Clyster only of the juyce of Onions.

VI. *By a Toad*, which infects sometimes by breathing on, sometimes by urin cast upon plants. In the Cure, let Treacle be given to drink with the Decoction of Rue. Let pure wine be drank liberally, plenty of sweat be provoked in a bath.

VII. *By the fish Araneus*, which is either taken inwardly into the Body, or by a blow sends its poyson to the Body, which way soever it be, [illegible] of the Belly, involuntary Tears, a desire to Piss, a distention of the Yard in young men, a relaxation of it in old men does afflict them. In the Cure, inwardly Treacle is wel given after a Vomit; outwardly, the place bit must be often washed with Salt water.

VIII. *By Flyes, Waspes, and Spiders*, whose sting must be taken out, and the place afterwards washt with Salt water, and the Creatures bruised must be laid on the wound to suck out the Poyson.

THE TWELFTH BOOK OF THE IDEA OF PRACTICAL PHYSICK.

Of the diſeaſes of Children.

Title. 1. *Of the diſeaſes of the Head.*

WEE might here now ſtop, and conclude our little work, but that the diſeaſes of children do hinder us, in which we meet with ſome things ſingular. Concerning them therefore we wil ſpeak very breifly in this laſt book as an appendix; and we ſhal not unprofitably divide them into the diſeaſes *of the head, middle, and lower belly.*

The diſeaſes of the Head in Children are.

I. A *milky cruſt, achores and favi*, or ulcerous bunchings out, ariſing cheifly in the head, but ſomtimes in the whol body, pouring forth of their holes ſomtimes mattery. *They ariſe* from a humor conteining partly thick, partly thin, ſerous, ſalt, and nitrous parts, either collected in the womb, or out of it by default of the milk. *In the cure* if no evil be feared, things that drive it out muſt be adminiſtred, as ſyrup of fumitory, burnt harts-horn, the nurſe muſt be purged, the matter offending be qualified by giving ſyrup of burrage, fumitory &c. if an eminent putrefaction be feared under the cruſt, the head muſt be waſht with an emollient decoction, afterwards gentle drying ointments muſt be applyed; if the skul be hurt we muſt provide for that.

II. *Aſiriaſis* or inflammation of the brain and membranes, which a hollowneſs of the forehead and eyes doth follow. 'T*is known* by this, that the bones of the fore part of the head at their upper part, where the coronal and ſagittal ſuture do meet, are as it were membranous, & the lower parts of them al are hard. It may *ariſe* alſo from the milk if the nurſes uſe ſpirituous and hot drinks. As *Lucretius* is Author that the goats tender young ones, are made with milk and wine. *In the cure* wee muſt endeavor that the brain be not hurt with the too much uſe of things cooling.

III. *A falling ſickneſs*, which proceeds, 1. *From a fright*, all occaſions of which muſt be avoided

avoided. 2. *From milk corrupted* in the stomach, and then a vomit is best. 3. *From Worms*, moving themselves in the Guts, of which Care must be taken. 4. *From hard breeding of Teeth*, which must be promoted. 5. *From the small Pox, Measles, and Feavers*, which also must be Cured. 6. *From a primary affect of the Brain*, the Cure in general respects both the time of the fit and the time after the fit. There is comended the *Emrald* stone. The Stone found *in the stomach of Horseleeches*, opened about the opposition of the Sun and Moon. *Elkes Hoofe*, put into the left Eare, a vomit here. *A Nodulus*, of Harts-horn prepared, Salt of Corals, Crystal prepared, the wood of Misleto of the Oake, put into the drink and renewed every fifth day, *a Plaister* made of white Amber, Frankincense, Mastick of each one dram and an half; Galbanum, Opoponax, of each one scruple; Misleto of the Oake, two drams; Amber Greese, six grains; Musk, three grains; Male piony Seeds, half a dram; Labdanum, one dram and an half, with a little Oyl of Nutmegs, and sprinkled over with the pouder of Cubebs. The Forehead and Neck also may be anointed with Oyl of white Amber.

IV. *Fears in sleep*, which because they arise from impure and filthy Vapors mixt with the Animal Spirits, and troubling them, raised from the Stomach, therefore they happen to Infants that do greedily suck. *In the Cure*, we must see, that the Infants do not too much ingulfe themselves in Milk, or that bad Milk be not generated, or that the little ones be not carryed to bed on a ful stomach. Let the stomach about its Orifice be anointed with Oyl of Quinces, Mastick, with Oyl of Nut-megs, before they sleep let a rowle of Diamoschum dissolved in Milk be given, and unless they be very hot, let a little Treacle be given weekly.

V. *A Convulsion*, of the joints in the Hands and Feet, which ariseth from the plentiful heaping in of thick Milk, and with which they are for the most part troubled about the time of breeding of teeth. *In the Cure* we must have a care of a cold and hot distemper, the Neck and joynts must be conveniently anointed.

VI. *Too much Watchings*, which for the most part do arise *From sharp Vapors* raised from the Milk corrupted in the stomach, sometimes they rise from Feavers, or some painful affect, *In the Cure* 'tis better, that the soles of the Feet be anointed with the Matrow of Deers bones, than that strong Hypnoticks be given, by which they are made more stupid.

VII. *A Squinting*, which is Cured in the new born if the light be placed on the contrary part to which the Eyes decline, or a Vizard with holes be put on the Face, of which See *Hartman*.

VIII. A *Moisture of the Ears*, arising from the moisture of the brain heaping up many Excrements, in which we must not be over hasty in the Cure. *The Urin of Children distilled dropt into the Eare is comended.*

Title, II. *Of the Diseases of the middle Belly.*

THe *Diseases affecting the middle Belly in Children are.*

I. *Hard breeding of Teeth*, which *is known* by this, that 'tis the time of Toothing, which happens about the beginning of the seaventh Month; the Infants often put their fingers in their Mouths, the Nurses feel their Nipples to be griped stronger; the place where the Teeth endeavor to break forth looks white, a great pain afflicts them, especially when Dog Teeth are cutting, with watchings, a loosenes, Convulsions. *The Cure is of good Hope*, if the Belly be loose, if an acute Feaver happen, because the matter causing the Convulsion being wasted by the Feaver, the convulsion ceaseth. If the Teeth break forth in the Winter or spring, because in the Winter the strength of the Native heat is greater. In the spring the Laxnes of the Gums. We must have a care in it, least that if the Belly have been loose, it be not too soon stopt. *The Gums being swelled* must be anointed with the brains of a hair boyled, or with the Fat of it; *being inflamed*, with the Ointment of Oyl of Roses and white Wax washt with the juyce of nightshade. *Being Ulcerated*, with fresh butter, with a little Honey and pouder of Frankincense.

II. *A Cough*, with difficulty of breathing, which either ariseth from matter *falling from the Head*, and *then* there is a Catarrhe and Cough, and in breathing there is perceived a certain snoaring and sound, while the Aire doth not pass freely, but through the ob-

ſtructed bronchies of the Lungs. Or *From Flegmatick blood* aſcending out of the Veins to the Lungs. And *then* there is neither Catarrhe nor Cough, and the Hypochondries are ſweld. *In the Cure* we muſt obſerve, whether the Cough be cold or hot, whether dry or moiſt. *Waſhing of the Feet*, in drink in which Cephalick Plants have been boyled, is commended; which muſt be followed with anointing of the ſoals with the Fat of a pike, or Goats Suet. *Outwardly*, the Breaſt may be anointed with Hens greaſe to make the breathing more eaſie.

Title, III. *Of the Diſeaſes of the Lower belly.*

THe *Diſeaſes of the lower Belly in Children*, Are,

I. *Vomiting*, which if it proceed *from plenty of Milk*, it muſt be withdrawn; if *from corruption of the Milk*, that which is caſt up by vomiting muſt be conſidered. In the Cure Honey of Roſes ſolutive given inwardly doth good; outwardly the ſtomach muſt be anointed with Oyl of Mint or wormwood; if from worms the Cure muſt be directed againſt them.

II. *Torments of the Belly*, which *are known* by this, that the Infants are unquiet, beat the Breaſt. *They ariſe* from wind, Humors, Milk corrupted, worms. *The Cure* may be fetcht from that above.

III. *A puffing up of the Hypochondries*, in which the Infants labour of a ſtreitneſs and compreſſion of the Mouth of the Stomach, a Cardiacal paſſion, and difficult breathing. It ariſeth from the greedy eating of Infants, when either they ſuck Milk plentifully, or take too much of other meat. Inwardly is commodiouſly given againſt this affect the pouder of Orice Root, or pidny. Outwardly Fomentations with the Decoction of Mother wort are good.

IV. *Coſtiveneſs of Body*, which proceed either *from ſome error* in the Diet of the Mother or Nurſe, or *from a diſtemper*, either cold and dry in the Guts themſelves, or hot and dry in ſome Bowel. *There* the belly is always almoſt ſluggiſh, and it muſt be agitated by moiſtures, Viz. Caſſia, Laxative raiſons, &c. *Hence* the Signs, and Cure, muſt be ſought from their places. Or *from a Viſcous*, and Tough *Flegm* wrapping up the Excrements to which inciſive and abſterſive means are due. The Symptomes oppoſed partly by ſuppoſitories of Mouſe dung with goats ſuet, partly by Clyſters: partly by uſe of things to the Navel, which are prepared of Aloes, Oxgaul, Myrrh, butter, Oyl, Quercetans Diacolocinthidos and other things. Purging Medicines may begiven alſo to the Nurſe.

V. A *Looſneſs*, happens either *out of the time of breeding Teeth*, the Reaſon of which muſt be fetcht from the ſixth Book, or *in the time of Toothing*, by reaſon of the corruption of the nouriſhment, and concoction troubled, or by a Feaver and preternatural heat, or by too much watching which pain cauſeth, or by pain calling away the heat that is neceſſary for action. This ought not to be ſtopt ſuddainly, if it be neither plentiful, nor the Infants bear it not ill; but if it happen otherwiſe, we muſt cleanſe firſt with a Clyſter, or Syrup of Roſes ſolutive with aſtriction. By and by we muſt bind, having regard to heat and cold.

VI. *Worms*, of which is ſufficiently ſpoken in the ſixth Book. They may *be prevented* partly *by Diet*, in which ſweet Fat things, Milk, Fiſh, Decaying fruits, figs and other things muſt be ſhun; Harts-horn prepared muſt be ſteeped in the drink, partly *by Medicines* carrying away the matter fit for the generation of worms, as are the Decoction of Sebeſtens, or its Electuary, Rowles of Diaturbith with Rhubarb, &c.

VII. A *Rupture*, which *ariſeth from the Peritonæum*, either *Relaxt or broke* by crying, Coughing, a fal, croſſing of the Legs, and then the Tumor is for the moſt part in one ſide, the Guts fallen down may be perceived by the touch, ſee the Cure in its place. Or *from a watriſh humor abounding in the belly*, and falling into the Cod, and raiſing it into a Tumor; and then the Tumor is for the moſt part in both ſides, the Cod is more puft up than in a Gut Rupture. In the Cure we muſt uſe Diſcuſſives.

VIII. An *Inflamation of the Navel*, which *ariſeth* when the blood runs thither from pain, and hurt by the external Air. It is dangerous if it change to an impoſtumation, and that being broke the Guts fal down. Therefore Suppuration may be hindered as much as may be.

IX. A *Strutting out of the Navel*, which

is discerned from an Inflamation by this, that the Navel yeilds to the touch, the color of the Skin is not changed, neither is there a Pulse or pain, unless the Guts be very much fallen down. It *ariseth*, 1. *From the ill tying of it*, or when a greater part of it than ought to be, is left, and this is incurable. 2. *From the Laxation of the Peritonæum*, and then the Tumor remains almost equal, the Navel hangs not forth so much; in the Cure we must have a care of windy Meats, Coughing, Crying. 3. *From a Rupture of the Peritonæum*, and then the Tumor when the Infant lies on his Back, is scarce perceived, when it walks, Sets, Cryes, Cals out, it increaseth. *In the Cure* the moss which grows on the Bullace Tree, is good: *Forestus*, commends rounds made of Leather and anointed with Oxycroceum.

X. *The Stone of the Bladder*, which *is known* by this, that the Urine is made with pain and by drops, 'tis somtimes cleare, somtimes like Milk or Whey, somtimes conteins some blood, the Infants perceive an itching in the yard. *It ariseth either* from Milk generated from meats producing a matter fit to form a stone, *or* from gravel by the accession of the weakness of the Stomach or Liver, by reason of which, things Unprofitable are not separated; or by the hot distemper of the Kidneys, by reason of which the Chyle is attracted, and sent to the Bladder unaltered. *In the Cure* baths take place with anointing, also broths made with the grains of Eglantine purified. See above, l. 6.

XI. *Incontinency of Urin*, which *ariseth*, 1. *From Custome*, the Muscle appointed to shut the Mouth of the Bladder, being so disposed, that 'tis relaxt at the least goad; if it pass to a habit, for the most part it accompanies til Death. 2. *From the Stone of the bladder*, of which formerly. 3. *From the weakness of the Sphincter Muscle*, induced by a cold and moist distemper. Which is taken away partly by the Nurses Dyet, partly by convenient Medicines inwardly and outwardly applyed (a Bath of Sulphur, Niter, and Oak Leaves is commended.)

XII. *An Intertrigo*, when the Scarfe-Skin in the Hips is separated from the true Skin. *It ariseth* cheifly from the Acrimony of the Urin, especially in the Corpulent, in which the filth cleaves to their Hips being wrinkled by reason of their Corpulency. *In the Cure* after a bath takes place, Nihilialbum, strowed on the place, or the Oyntment of Lytharge laid on.

XIII. *A Leanness*, which *ariseth*, 1. *From most smal Worms*, which are generated in the Musculous parts of the Arms and back, & consume the nourishment. They break forth like to ash colored or black Hairs after those parts have been rubbed in a bath with bread mixt with Honey. They are taken away, if after they have put themselves forth, they be shaved off with a raizer or crust of bread. 2. *From Milk*, either little or *Bad*, which faults are somtimes mended by changing of the nurse. 3. *From bewitching*, which is inferred either by touching of bodies evilly affected, as happens in the Scab, French Pox, &c. Or by diseased effluxes which break forth either from them or their Parts, the Eyes especially, and are transferred to them. (Hence if one earnestly look upon those troubled with an Ophthalmy, he is taken with the same Disease.) amongst the medicines that destroy bewitching, *Amber* and Coral hanged about the Neck are highly commended by some. But concerning Childrens diseases, consult with *Sebastianus Austrius*, and the notes of *Nicolaus Fontanus*, upon him.

FINIS.

The Vertues, Use, and variety of Operations of the True and Phylopsohical AURUM POTABILE, *Attained by the Studies of Doctor* Freeman, *and Dr.* Culpeper, *and left with his Widdow, and administred by a Physitian in her House neer* London, *on the East side of Spittle-fields, next door to the Red Lyon.*

The Vertues are as follow:

IT Cures al Agues, whether Quotidian, Tertian, or Quartan: as also it cured divers people of that most horrid putrid Feaver, which so violently seized on mens Bodies (both before and after *Michaelmas*, 1653.) to the great admiration of many; and when the parties Diseased have been both senceless and speechless, for that neither that, nor any other Medicine of *Panacea*, though never so gentle, could safely be administred into the Body, it hath beyond al Hopes, by external Application on the stomach revived them. It cures the Gout of all sorts perfectly being administred as the Physician shal advise. It causeth Women subject to Abortion, or Miscarriage, to go their time: and yet being given when the time comes it causeth a speedy and safe delivery. It is an infallible cure for the French Pox, and doth it with such ease, speed, and Secretness, that none of the neareſt relation shal take notice thereof. It Cures the Green-sickness and al sorts of Jaundice, It provokes the Terms. It is good for Aches and all afflictions coming of cold. It helps the Bitches. But to what purpose do I nominate diseases in particular, when it is an universal Remedy for al Diseases being administred as the Physician shal advise? For its chief aim is exhilarating the vital Spirits and Heart. It both binds and stops fluxes, yet Purges; it both Vomits, and stays Vomiting; it causes Sweat, yet cures preternatural sweatings, and performs al its Operations as Nature it self would have it, because it only fortifies her in her Centre.

To conclude, It is an Universal Fortification for al Complexions and Ages, against al sorts and degrees of Pestilential and contagious Infection, both preventing before their possession, and extirpating of them after it.